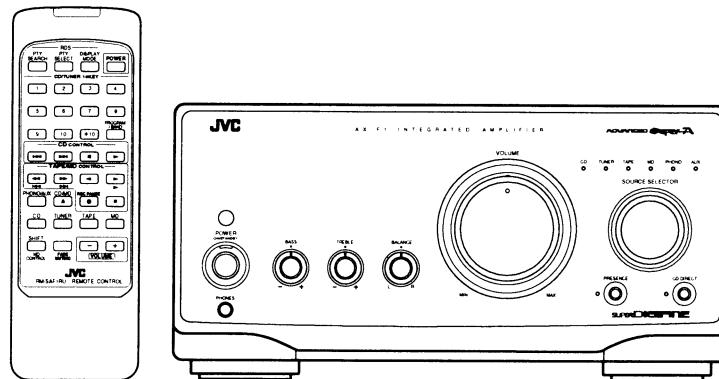


JVC

SERVICE MANUAL

INTEGRATED AMPLIFIER

AX-F1GD



Area Suffix

BS	the U.K.
EF	Continental Europe Except Germany and Italy
EN	Nordic Countries
G	Germany
GI	Italy
US	Singapore
UT	Taiwan
UB	Hong Kong
U	Other Area

COMPU LINK
Remote Control Component

Contents

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<i>Disassembly Procedures</i>	1-14	<i>Printed Circuit Boards</i>	<i>Insertion</i>
		<i>Parts List</i>	<i>Separate-volume Insertion</i>

Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (Δ) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage current check (Electrical shock hazard testing)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

Do not use a line isolation transformer during this check.

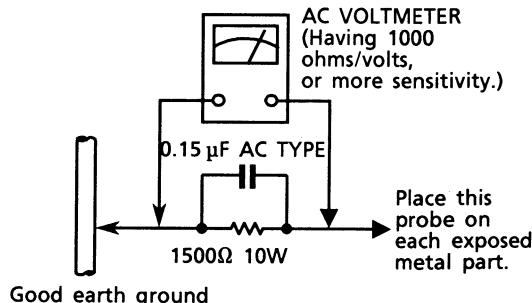
 - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).
 - Alternate check method

Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a $1,500\Omega$ 10 W resistor paralleled by a $0.15\ \mu\text{F}$ AC-type capacitor between an exposed metal part and a known good earth ground.

Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor.

Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

General Information

We would like to thank you for purchasing one of our JVC products. Before connecting this unit to the wall outlet, please read the instructions carefully to ensure that you obtain the best possible performance. If you have any questions, please consult your JVC dealer.

Features

50W + 50W (Rated output) Advanced Super A

The power stage employs the 'Advanced Super A' circuit, more advanced than Super A, to improved linearity.

PRESENCE: Sound heard easily, even at low volume

By improving the realism of low sounds, and clarifying the outline of midrange sounds, playback is easily heard at low volume or when using small speakers.

Important cautions

1. Installation of the Unit

- Select a place which is level, dry and neither too hot nor too cold (Between 5°C and 35°C or 41°F-95°F).
- Leave sufficient distance between the Unit and a TV.
- Do not use the Unit in a place subject to vibrations.

2. Power cord

- Do not handle the power cord with wet hands!
- A small amount of power (8.5 watts) is always consumed as long as the power cord is connected to the wall outlet.
- When unplugging the Unit from the wall outlet, always pull the plug, not the power cord.

3. Malfunctions, etc.

- There are no user serviceable parts inside. If anything goes wrong, unplug the power cord and consult your dealer.
- Do not insert any metallic object into the Unit.

For safe use, observe the following

Avoid moisture, water and dust

Do not set your machine in moist or dusty places.

Avoid high temperatures

Do not expose your machine to direct sunlight or set near a heating device.

Do not block the vents

Poor ventilation may damage your machine. So do not block the vents nor put the unit in a poorly ventilated place.

When you're away

When away on travel or otherwise for an extended period of time, pull the plug from the outlet.

Do not insert foreign matter into the machine

Do not insert wires, hairpins, coins, etc. into your machine.

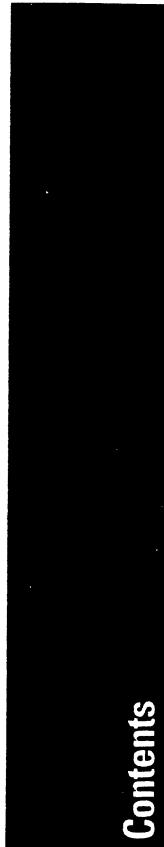
Care of the cabinet

When cleaning your machine, use a soft cloth and follow the relevant instructions on the use of chemically-coated cloths. Avoid applying benzene, thinner or other organic solvents and disinfectants. This may cause deformation or discoloring.

If water gets inside the machine

Cut the main power switch and pull the plug from the electrical socket, then call the store where you made your purchase. Using the machine in this state may cause a fire or electrical shock.

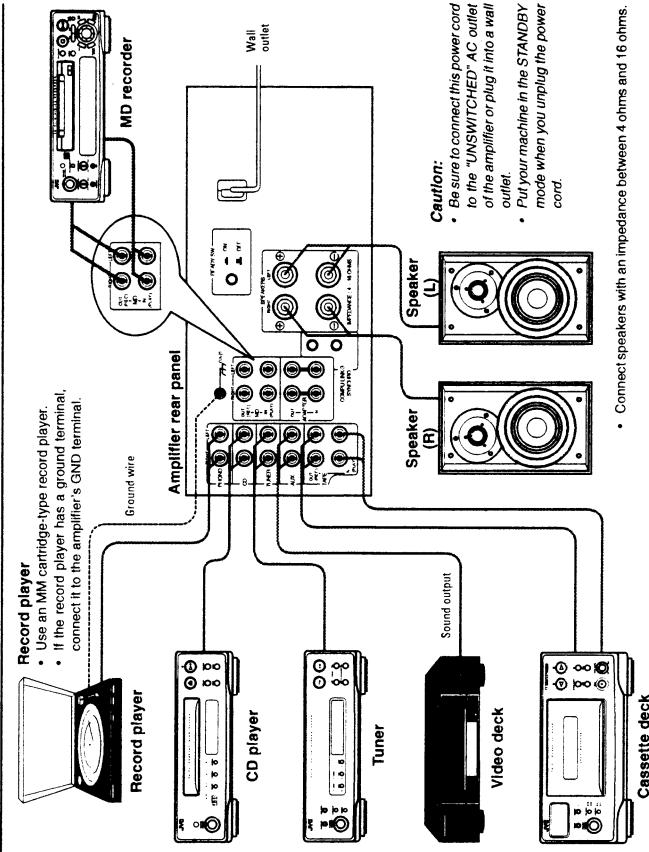
Contents



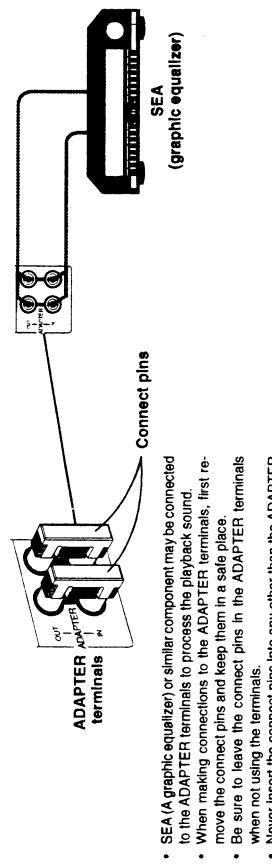
Connections

Be sure not to plug in the power cord until all other connections have been made.

Connection of other components



ADAPTER terminals



- SEA (A graphic equalizer) or similar component may be connected to the ADAPTER terminals to process the playback sound.
- When making connections to the ADAPTER terminals, first remove the connect pins and keep them in a safe place.
- Be sure to leave the connect pins in the ADAPTER terminals when not using the terminals.
- Never insert the connect pins into any other than the ADAPTER terminals as this could result in malfunction.

Names and functions of parts

Supplying the AC power

Only when all the connections are completed, insert the power plug into the wall outlet. Next set the READY switch to ON. Then the STANDBY indicator lights and the setup is complete.

Connecting audio components for COMPULINK-3 Remote Control System

The COMPULINK-3 remote control system allows you to control other JVC audio components from the AX-F1GD or vice versa. To use this system, connect your JVC audio components and the AX-F1GD with the COMPULINK cord (monaural mini-plug) supplied. (See page 8 for details)

Using the remote control

Point the remote control towards the remote sensor of the AX-F1GD when you push the buttons. If may not work if there is an obstruction between the remote sensor and the remote control. In such a case, change the position of the machine, or remove the obstruction.

How to put batteries in the remote control
Match the polarity (+ and -) on the batteries with the + and - marking on the battery compartment.

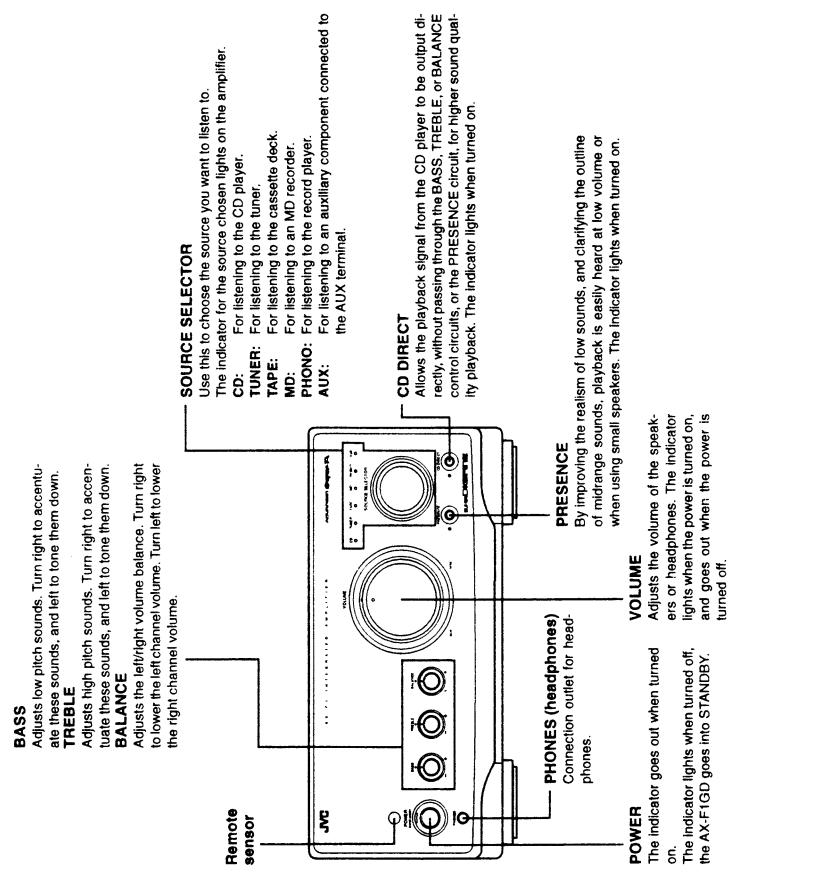
Cautions:

- Observe the following to avoid battery leakage or explosion:
 - If the range or effectiveness of the remote control decreases, replace the batteries.
 - Remove batteries when the remote control will not be used for a long time.
 - When you need to replace the batteries, replace both batteries at the same time with new ones.
 - Don't use an old battery together with a new one.
 - Don't use different types of batteries together.
 - Strong impact on the remote control may cause batteries to drop out on the battery compartment.

Note

Point the remote control unit towards the remote sensor and operate it steadily and carefully. The remote control unit can be used within a range of about 7 meters (23 feet) from the remote sensor, and at angles of up to about 30 degrees.

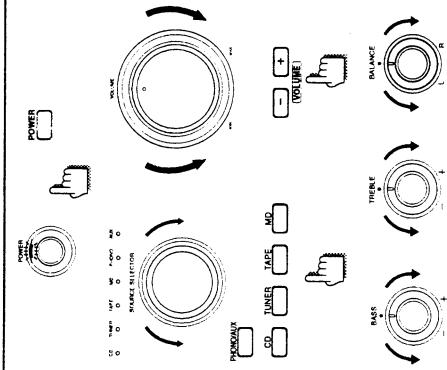
Front panel



Using the amplifier

Listening to the desired source

1. Turn the power on
 - The STANDBY indicator goes off when the POWER button is pressed.
 - The remote controller can also be used to turn the power on.



2. Choose the source you want to listen to
 - Use the source selector to choose the source. The indicator of the chosen source lights.
 - The remote control can also be used to choose the source.
3. Operate the component you chose
 - Refer to the component's instructions.

4. Adjust the volume
 - Use the VOLUME knob to adjust the volume.
 - The remote control can also be used to adjust the volume.
5. Adjust the sound quality and balance
 - Adjust low pitch sounds with the BASS knob.
 - Adjust high pitch sounds with the TREBLE knob.
 - Adjust the right/left balance with the BALANCE knob.

Sound etiquette

Listen to music at an appropriate volume that will not disturb others. Especially in the quiet of night, even quiet sounds can carry easily. To prevent a disturbance, close windows and use headphones. Take care to think of others' comfort.

Caution:

When CD DIRECT is on, adjusting BASS or TREBLE has no effect.

CD DIRECT

The playback signal from the connected CD player is output directly, without passing through the BASS, TREBLE, BALANCE control circuit, or PRESENCE circuit, to provide higher sound quality.

1. Press CD DIRECT
 - The indicator lights.
2. Adjust the volume
 - Adjust the volume using the VOLUME knob.

Caution:

- When CD DIRECT is on, adjusting BASS, TREBLE or BALANCE has no effect.
- Turning on CD DIRECT when PRESENCE is on turns off PRESENCE.
- If you want to listen to an MD, set the CD DIRECT button to OFF. Sound does not come out when the button is set to ON.

PRESENCE

By improving the realism of low sounds, and clarifying the outline of midrange sounds, playback is easily heard at low volume or when using small speakers.

1. Press PRESENCE
 - The indicator lights

Caution:

- Turning on PRESENCE when CD DIRECT is on turns off CD DIRECT.

COMPULINK Remote Control System

This section describes operation of the amplifier when the separately sold JVC audio components are synchronously connected (COMPULINK-3).

COMPULINK basics

The following section describes the COMPULINK Remote Control System. In these instructions we refer to the COMPULINK Remote Control System as COMPULINK for convenience sake.

Buying a separate MD recorder, CD player, amplifier or other components to enjoy just the combination you want is a good way to get high-quality sound. However, since each component has to be operated individually, this method has the drawback of difficult operation. JVC's COMPULINK Remote Control System meets the demand for a system made up of single components and has the ease of operation of a single unit.

Products that are compatible with COMPULINK have terminals marked either COMPULINK-1, COMPULINK-2, or COMPULINK-3 (referred to collectively as COMPULINK terminals). When components are linked by the COMPULINK terminals, simple operations of those of a single unit component system can be achieved.

About the COMPULINK version

There are three versions of COMPULINK currently on sale by JVC. These are COMPULINK-1, COMPULINK-2, and COMPULINK-3. COMPULINK-3 is the newest version, with more functions than COMPULINK-1 and COMPULINK-2.

Distinguishing versions

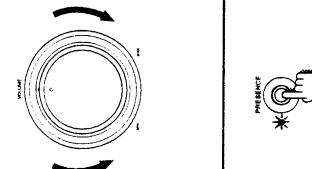
The version is displayed at the terminals of the components.

Caution: COMPULINK-3 components may be connected to other version components, but in this case the newest functions may not work.

COMPULINK 3 functions

The following is a brief overview of COMPULINK-3 functions.

- One press play
- Synchro recording
- Timer operation
- Total operation by remote control



Mindiac recorder automatic input switching

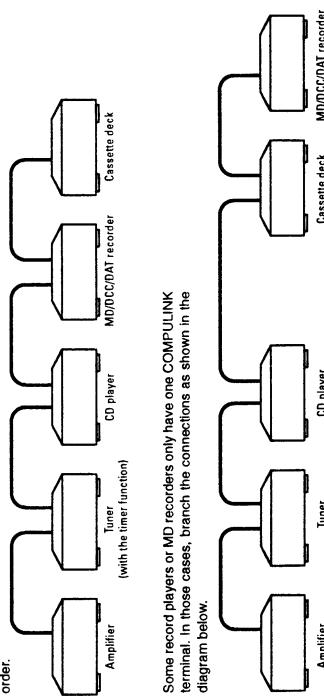
When the setting of the input selector in the mindiac is set to digital input, digital input is done only when the amplifier's source selector is set to CD. When it is set to other sources, analog input is done.

This saves the labor of switching every time.

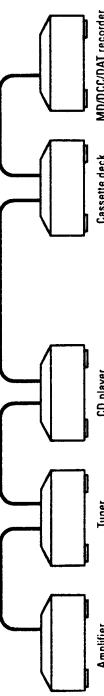
Connections

COMPULINK-3 connections

Connection example
This is the basic connection example of the JVC audio components. Connection is done so that all functions are bridged. There is no set order.



Some record players or MD recorders only have one COMPULINK terminal. In those cases, branch the connections as shown in the diagram below.



Connect the COMPULINK terminals of each component to each other using the connection cable with mono mini plugs.

- When there is more than one COMPULINK terminal, any terminal can be used.

• Plug the power plugs of each component into the UNSWITCHED outlet or a wall outlet. If components are plugged into the SWITCHED outlet, COMPULINK functions will not work normally.

• If there are no input/output terminals for an MD recorder or DCC deck on the amplifier, use the DAT terminals. If other terminals are used, COMPULINK will not work normally.

Cautions:

- Among MD recorders, DCC decks and DAT decks, two different types of components cannot be connected in the COMPULINK system at the same time. Select the more commonly used component to connect.
- If the amplifier is not connected, only the 'syncro recording' function will work.
- The 'timer operation' function will only work if a tuner with a timer function is connected.

COMPULINK-3 functions

See pages 8, 9 for information on making syncro connections.

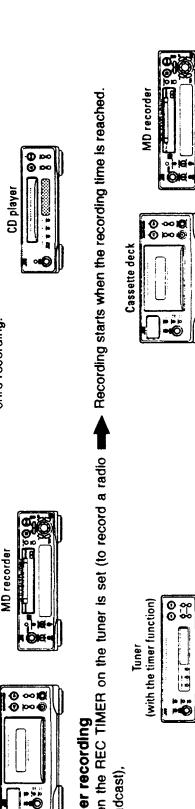
1. System power on/STANDBY

When the power of the AX-F1GD or its remote control is turned on/off, the system is turned on. If turned off, the system is turned off.



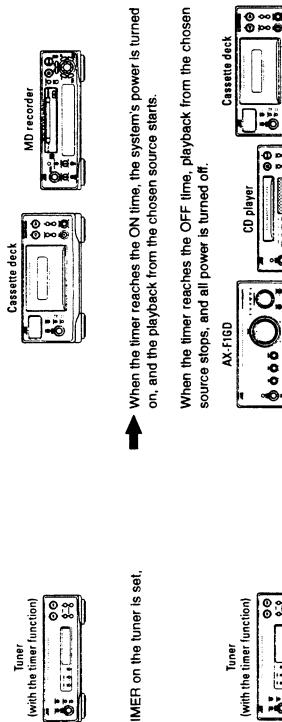
2. Syncro recording of CDs

When REC PAUSE is pressed on the cassette deck or MD recorder (recording standby mode), cassette deck starts recording. Recording source cannot be changed on the amplifier during syncro recording.



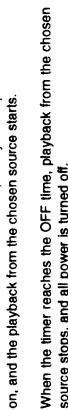
3. Timer recording

When the REC TIMER on the tuner is set (to record a radio broadcast), recording starts when the recording time is reached.



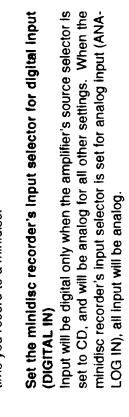
4. Timer play

When the DAILY TIMER on the tuner is set, recording starts when the timer reaches the ON time, the system's power is turned on, and the playback from the chosen source starts.



5. Minidisc recorder automatic input switching

To have the minidisc recorder input switched automatically: With the automatic input switching function, you can save the trouble of first having to change the input selector setting each time you record to a minidisc.



Set the minidisc recorder's input selector for digital input (DIGITAL IN)

Input will be digital only when the amplifier's source selector is set to CD, and will be analog for all other settings. When the minidisc recorder's input selector is set for analog input (ANALOG IN), all input will be analog.

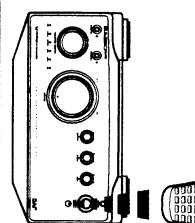
Caution:

For information about coordinated operation by the COMPULINK-3 remote control system, see the instructions of the separately sold JVC audio components.

Remote control

When the COMPULINK-3 remote control system is missing, the only functions which can be done with the amplifier's remote control are POWER, SOURCE SELECTOR, VOLUME and FADE MUTING.

Point the end of the remote control at the amplifier's remote sensor and press the buttons correctly. If the remote control is used at an angle, the signal may not register, so try to have it contact straight on, as much as possible. Make sure there are no obstructions between the amplifier and remote control.



RDS (Radio Data System)

These buttons are for use of a tuner with RDS functions.
 PTY SEARCH : Used for searching for a program by setting a PTY code.
 PTY SELECT : Select a PTY code.
 DISPLAY MODE : Changes the display indications from the time to the station information.

POWER

Turns on the unit or puts it in STANDBY mode.

TUNER 10KEY

After selecting the tuner, the 1 to 10, +10 and BAND keys can be used to operate the tuner.
 1 to 10: Used for selecting a preset channel
 +10: Used to choose AM or FM
 BAND: Used to choose AM or FM

SOURCE SELECTOR

Used to choose the source you want to listen to.
 The indicator for the source chosen lights on the front panel.
 CD: For listening to the CD player.
 TUNER: For listening to the radio.
 TAPE: For listening to the cassette deck.
 MD: For listening to an MD.
 PHONE/AUX: For listening to the record player or an auxiliary component connected to the AUX terminal.
 CD/MD/PHONE/AUX: Opens or closes the CD tray. With the SHIFT button pressed, ejects or loads an MD.

VOLUME

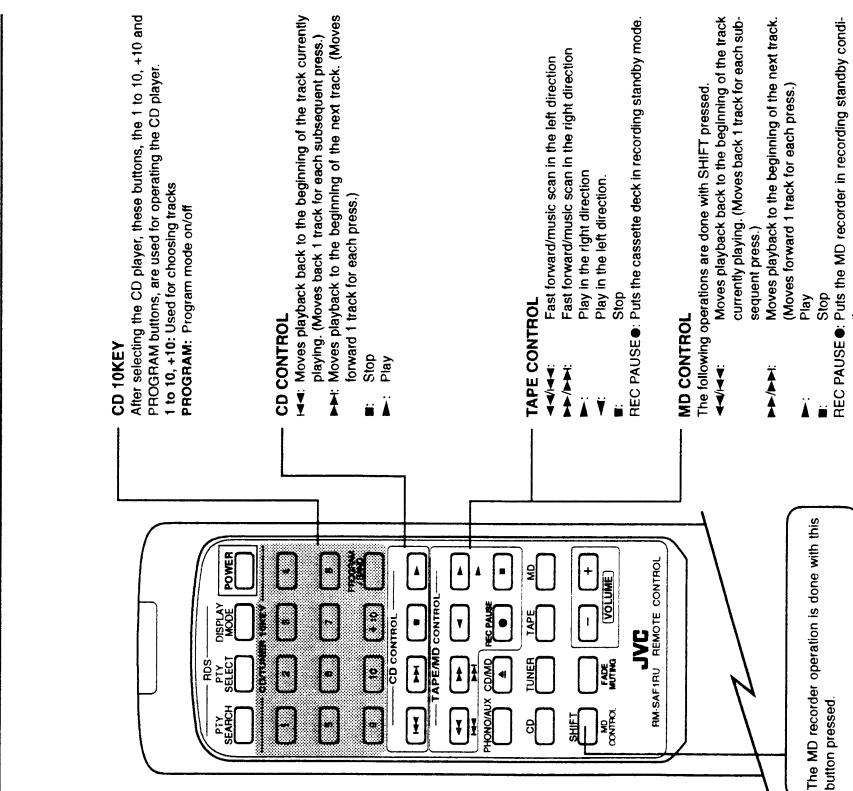
Adjusts the volume of the speakers or headphones.
 -: Lowers the volume.
 +: Raises the volume.

FADE MUTING

Turns off the volume.

One press play (with the AX-F1GD In STANDBY)

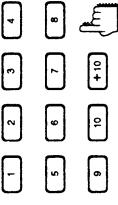
- When TUNER is pressed, the power of the amplifier and the tuner turns on and receive the station last tuned in.
- When TAPE or the cassette deck's play button (\blacktriangleleft or \triangleright) is pressed, the power of the amplifier and the cassette deck turns on and a tape is played.
- When CD or the CD player's play (\blacktriangleright) button is pressed, the power of the amplifier and the CD player turns on and playback starts.
- When PHONE/AUX is pressed, the amplifier is turned on.
- When MD or the MD recorder play button (\blacktriangleright) is pressed, the power of the amplifier and MD recorder turns on and playback starts.



Troubleshooting

PROGRAM play of a CD by remote control

- 1. Press CD**
Select the CD player as an input source.
- 2. Press PROGRAM/BAND**
The PROGRAM indicator on the CD player lights.
- 3. Specify a track number with the CD/TUNER 10 KEY buttons from 1 to 10 and +10**
For the 5th track on the CD, press "5".
For the 20th track, press "+10", and then "10".
For the 25th track, press "+10" twice, and then "5".
PROGRAM play can be done for up to 32 tracks. Each time a track is specified, the programmed track numbers and number of programmed tracks are displayed.
- 4. Press the play ▶ button**
PROGRAM play starts.



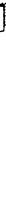
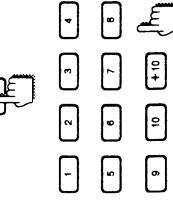
To confirm a program
You can check the tracks programmed by pressing ▶ or ▶ when the CD is not playing.

To cancel a program
Press PROGRAM/BAND when the CD is not playing.
The CD player's PROGRAM indicator goes out, and the program is completely canceled.

Caution:
The program is not canceled even if stop ■ is pressed.

Setting a preset channel by remote control

- 1. Press TUNER**
Select the TUNER as an input source.
- 2. Press PROGRAM/BAND**
Used to choose AM (MW/LW) or FM
- 3. Specify a preset channel with the CD/TUNER 10 KEY button**
For the 5th channel on the AM (MW/LW) or FM, press "5".
For the 20th channel, press "+10", and then "10".
For the 25th channel, press "+10" twice, and then "5".



- If you are having a problem with your AX-F1GD, check this list for a possible solution before calling for service.
- If you cannot solve the problem from the hints given here, or the Unit has been physically damaged, call a qualified person, such as your dealer, for service.

SYMPTOM	POSSIBLE CAUSE	ACTION
There is no sound	<ul style="list-style-type: none"> Connections are incorrect. The AX-F1GD is selecting another component. 	<ul style="list-style-type: none"> Connect the cords correctly. Set amplifier's SOURCE SELECTOR to the correct setting.
Sound only comes out of one speaker	<ul style="list-style-type: none"> The BALANCE knob is set to right or left. 	<ul style="list-style-type: none"> Adjust the BALANCE knob.
BASS, TREBLE and BALANCE knobs don't work	<ul style="list-style-type: none"> CD DIRECT is set to ON. 	<ul style="list-style-type: none"> Turn off the CD DIRECT.
The remote control doesn't work	<ul style="list-style-type: none"> There are obstacles between the remote control and the remote sensor. Dry batteries have run out. 	<ul style="list-style-type: none"> Remove obstacles between the remote control and amplifier. Replace old batteries with new ones.

Specifications

Output Power (IEC 268-3 DIN):	50 watts per channel into 4 ohms at 1 kHz with no more than 0.7% total harmonic distortion.
(IVC Audio Analysis System):	40 watts per channel, min. RMS, both channels driven into 6 ohms from 20 Hz to 20 kHz, with no more than 0.03% total harmonic distortion.
	40 watts per channel, min. RMS, both channels driven into 6 ohms at 1 kHz with no more than 0.01% total harmonic distortion.
Total harmonic distortion	
CD DIRECT in, SPEAKERS out:	0.003% at 40 watts (at 1 kHz, 6 ohms loaded)
CD, TUNER, AUX, TAPE, MD in, SPEAKERS out:	0.03% at 40 watts (from 20 Hz to 20 kHz, 6 ohms loaded)
PHONO in, SPEAKERS out:	0.01% at 40 watts (at 1 kHz, 6 ohms loaded)
	0.03% at 40 watts (from 20 Hz to 20 kHz, 6 ohms loaded)
	0.05% at 40 watts (from 20 Hz to 20 kHz, 6 ohms loaded -17 dB volume)
Damping Factor:	
	80 (1 kHz, 8 ohms)
Power bandwidth:	20 Hz to 20 kHz (HF, both channels driven into 6 ohms, with no more than 0.05% total harmonic distortion)
Signal-to-noise ratio (65 IHF/DIN)	
PHONO (MM):	73 dB/72 dB
CD, TUNER, AUX, TAPE, MD:	90 dB/75 dB
CD DIRECT:	105 dB/75 dB
Input Sensitivity/ Impedance (1 kHz)	
PHONO (MM):	2.5 mV/ 47 k ohms
CD, TUNER, AUX, TAPE, MD:	200 mV/ 47 k ohms
Output Level/ Impedance (1 kHz)	
MD:	200 mV/ 740 ohms
Tone control range	
BASS:	+8 dB at 100 Hz
TREBLE:	+8 dB at 10 kHz
Frequency Response (6 ohms):	10 Hz to 70 kHz (+0 dB, -3 dB)
PHONO overload capacity	
(PHONO in, TAPE/MD REC out):	100 mV (with no more than 0.1% total harmonic distortion)
RIAA phono equalization:	±0.5 dB (20 Hz to 20 kHz)
Power Requirement:	AC 230 volt/s ⁰ , 50 Hz
Power Consumption:	120 watts
Dimensions (W x H x D):	8.5 watts (STANDBY)
	245 x 120 x 309.5 mm 9-11/16 x 4-3/4 x 12-3/16 inches
Mass:	4.9 kg (10.8 lbs)

Design and specifications subject to change without notice.

Description of ICs

■ MN171202J6L (IC501) : SYSTEM CONTROLLER

1. Terminal Layout

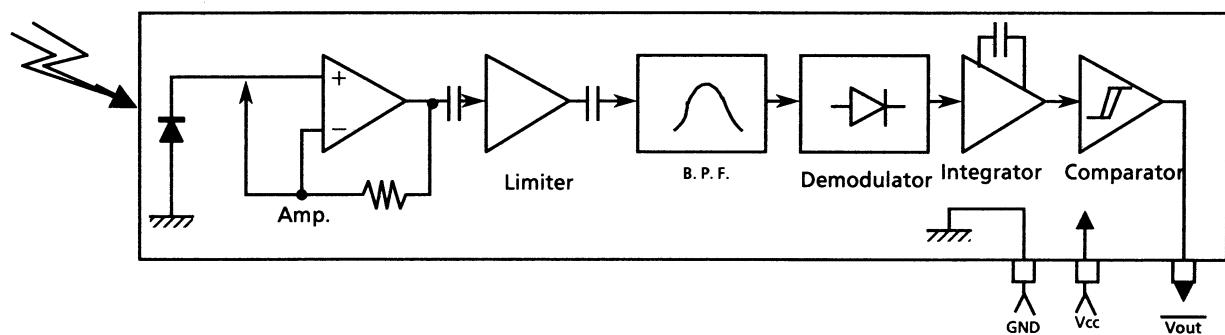
VDD	1	64	OSC IN
CD IND	2	63	OSC OUT
TUNER IND	3	62	GND
TAPE IND	4	61	
MD IND	5	60	
PHONO IND	6	59	
AUX IND	7	58	POWER ON
POWER ON IND	8	57	SPK-RELAY
VOLUME IND	9	56	MUTE
DIRECT IND	10	55	DIRECT ON/OFF
SOUND IND	11	54	SOUND ON/OFF
	12	53	VOL. DOWN
	13	52	VOL. UP
	14	51	H.P.IN
	15	50	
	16	49	
	17	48	
GND	18	47	
	19	46	PROTECT-IN
	20	45	INH
	21	44	RM-IN
	22	43	RESET
	23	42	DATA
	24	41	STB
	25	40	SCLK
DCS-IN	26	39	
DCS-OUT	27	38	SOURCE SEL-2
	28	37	SOURCE SEL-1
	29	36	
	30	35	
DIRECT KEY IN	31	34	
POWER KEY IN	32	33	SOUND KEY IN

2. Functions

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	VDD	--	Power supply	33	SOUND KEY IN	I	SOUND key input
2	CD IND	O	CD indicator control	34		--	Connect to GND
3	TUNER IND	O	TUNER indicator control	35		--	Connect to GND
4	TAPE IND	O	TAPE indicator control	36		--	Connect to GND
5	MD IND	O	MD indicator control	37	SOURCE SEL-1	I	Source select control
6	PHONO IND	O	PHONO indicator control	38	SOURCE SEL-2	I	Source select control
7	AUX IND	O	AUX indicator control	39		--	Connect to GND
8	POWER ON IND	O	POWER ON indicator control	40	SCLK	O	Clock output for IC201
9	VOLUME IND	O	VOLUME indicator control	41	STB	O	Strobe signal for IC201
10	DIRECT IND	O	CD DIRECT indicator control	42	DATA	O	Data for IC201
11	SOUND IND	O	SOUND indicator control	43	RESET	I	Reset signal input
12		--	Pull up	44	RM-IN	I	Remote control signal input
13		--	Pull up	45	INH	I	Inhibit signal input
14		--	Pull up	46	PROTECT-IN	I	Detection for protector
15		--	Pull up	47		--	Connect to GND
16		--	Pull up	48		--	Connect to GND
17		--	Pull up	49		--	Connect to GND
18	GND	--	GND	50		--	Connect to GND
19		--	Pull up	51	H.P.IN	I	Headphone in signal input
20		--	Pull up	52	VOL. UP	O	Volume control signal
21		--	Pull up	53	VOL. DOWN	O	Volume control signal
22		--	Pull up	54	SOUND ON/OFF	O	Presence control signal
23		--	Pull up	55	DIRECT ON/OFF	O	CD direct control signal
24		--	Pull up	56	MUTE	O	Source mute control signal
25		--	Pull up	57	SPK-RELAY	O	Speaker relay control signal
26		--	Pull up	58	POWER ON	O	Regulator control signal
27	DCS-IN	I	Compulink signal input	59		--	Connect to GND
28	DCS-OUT	O	Compulink signal output	60		--	Connect to GND
29		--	Pull up	61		--	Not used
30		--	Pull up	62	GND	--	GND
31	DIRECT KEY IN	I	CD DIRECT key input	63	OSC OUT	O	Clock oscillator output
32	POWER KEY IN	I	POWER key input	64	OSC IN	I	Clock oscillator input

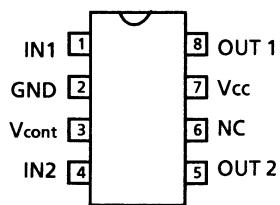
AX-F1GD

■ GP1U501X (IC502) : Receiver for remote controller

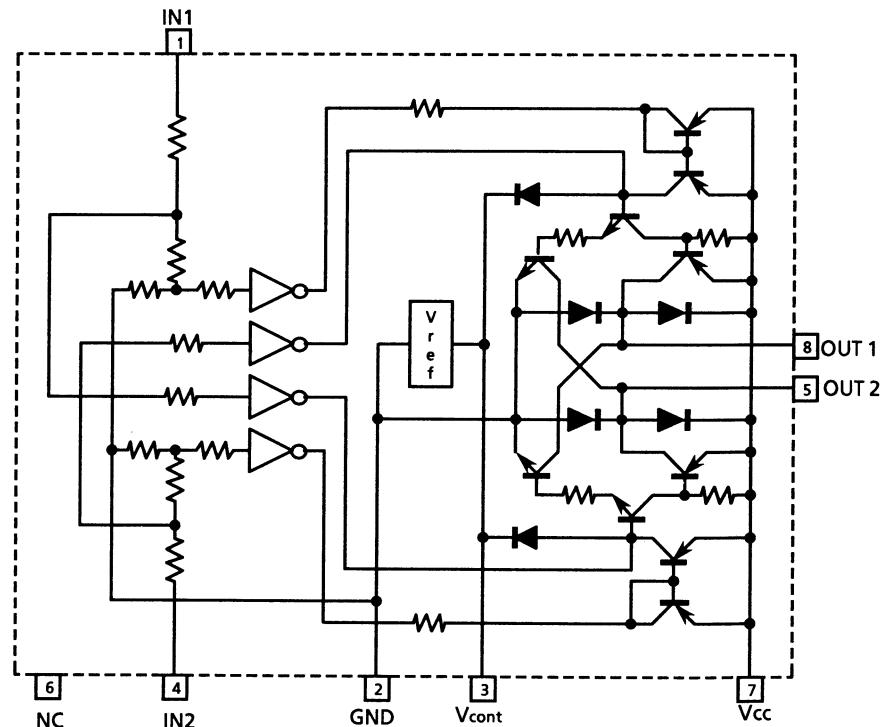


■ LB1639-CV (IC351) : Motor Driver

1. Terminal Layout



2. Block Diagram

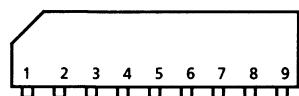


3. Functions

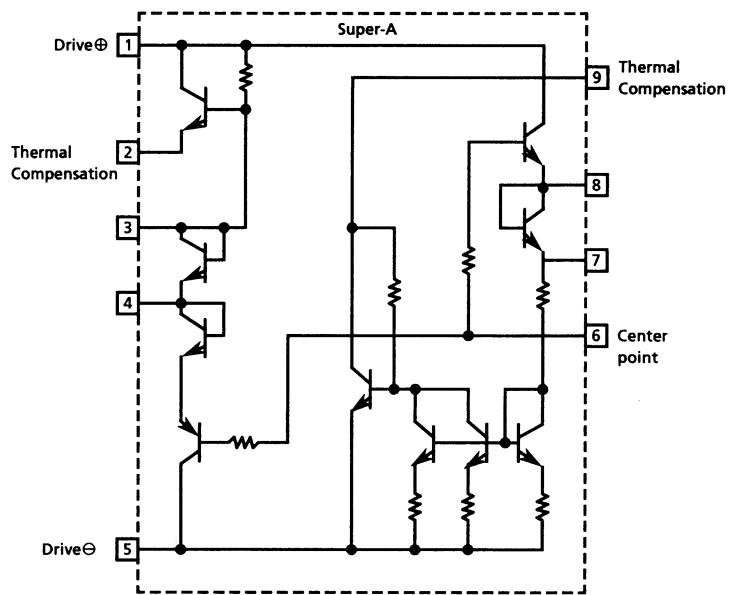
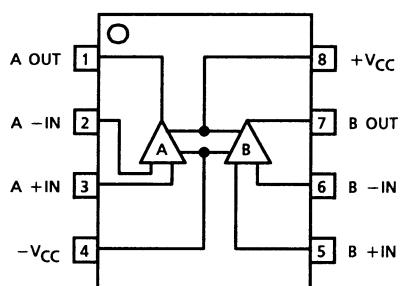
IN 1	IN 2	OUT 1	OUT 2	MOTOR
H	L	H	L	CLOCKWISE
L	H	L	H	COUNTER-CLOCKWISE
H	H	OFF	OFF	WAITING
L	L	OFF	OFF	WAITING

■ VC5022-2 (IC751) : SUPER A

1. Terminal Layout



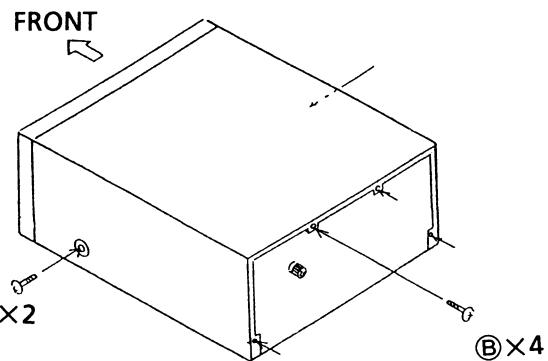
2. Block Diagram

■ VC4580DD (IC101,231,361,301) : Dual OP amp.
NJM4558 (IC362,363) : Dual OP amp.

Disassembly Procedures

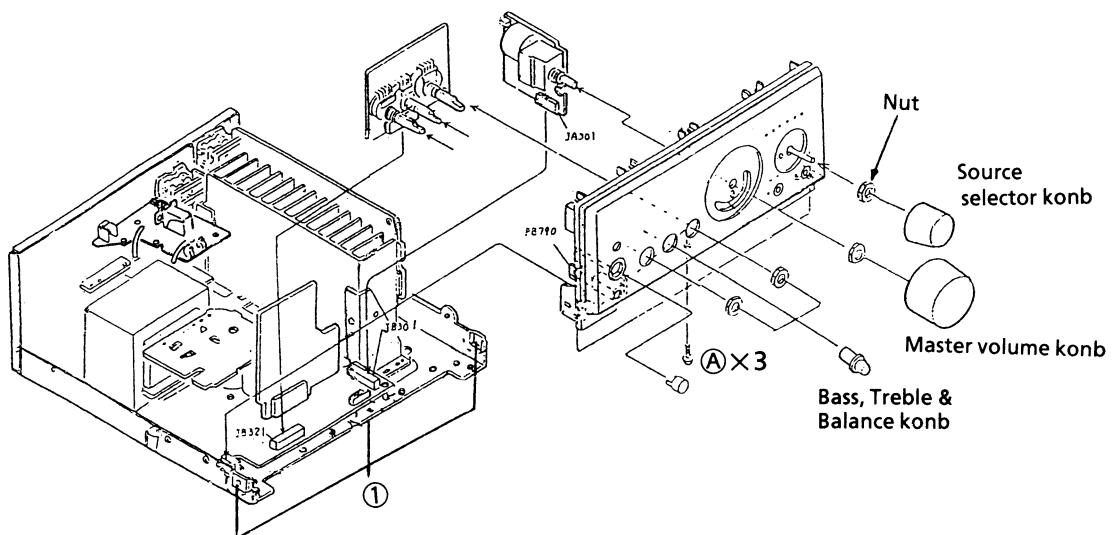
(1) Removing the top cover

1. Remove 2 screws **A** fastening both sides of top cover, and 4 screws **B** fastening the rear side.
2. Remove the top cover.



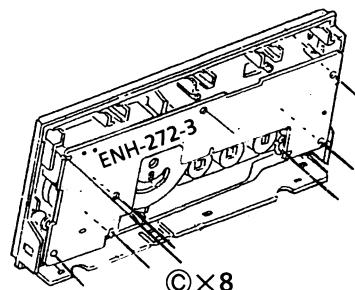
(2) Removing the Front Panel Assembly

1. Remove the top cover.
2. Disconnect the connector PA350.
3. Pull out the Master volume knob, Treble knob, Bass knob and Balance knob.
4. Remove the nut fastening the Master volume, Bass and Balance.
5. Disconnect the connectors (PA790,P202,P203,BC500)
6. Remove 3 screws **A** and 3 hook **①** fastening bottom of the front panel assembly.



(3) Removing the Control PCB (ENH-272-3)

1. Remove the top cover.
2. Remove the front panel assembly.
3. Pull out the source selector knob and remove the nut fastening the source selector.
4. Remove 8 screws **C** fastening the control PCB to remove it.



A .. SDSG3008N

B ... GBSG3008CC

C ... SDSF2608Z

(4) Removing the Input & Selector PCB (ENH-272-2)

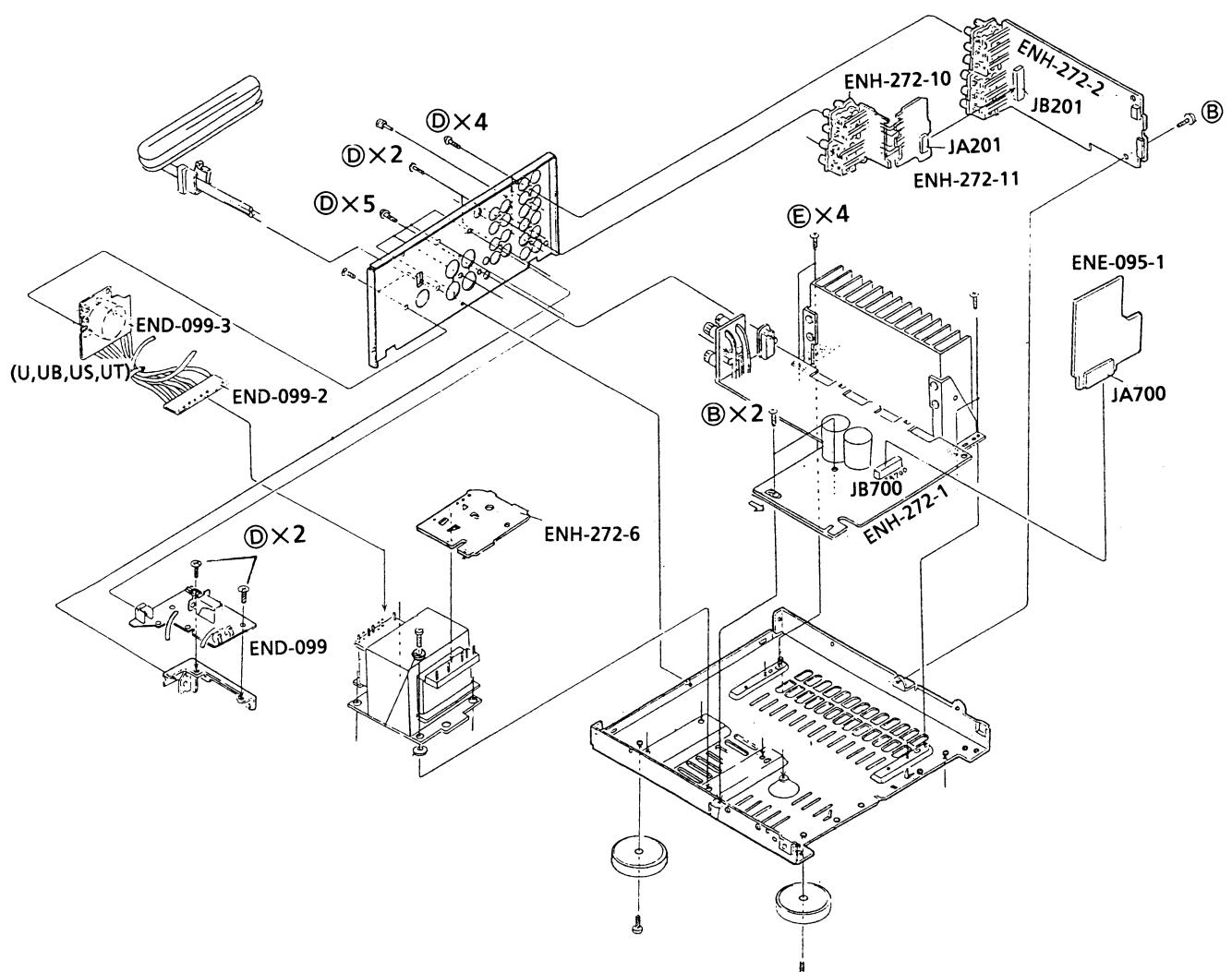
1. Remove the top cover.
2. Disconnect the connectors P202 and P203.
3. Remove 7 screws ⑧ and ⑩ fastening the input & Selector PCB to remove it.

(5) Removing the Power supply PCB (END-099)

1. Remove the top cover.
2. Remove 3 screws ⑩ fastening the power supply PCB to remove it.

(6) Removing the Main PCB (ENH-272-1)

1. Remove the top cover.
2. Remove the front panel assembly.
3. Remove the volume PCB, balance PCB, power supply PCB and pre-driver PCB.
4. Remove 2 screws ⑧ fastening the main PCB.
5. Remove 4 screws ⑤ fastening the heat sink.
6. Remove 2 screws ⑩.
7. Remove the main PCB with heat sink.



⑧ ... GBSG3008CC

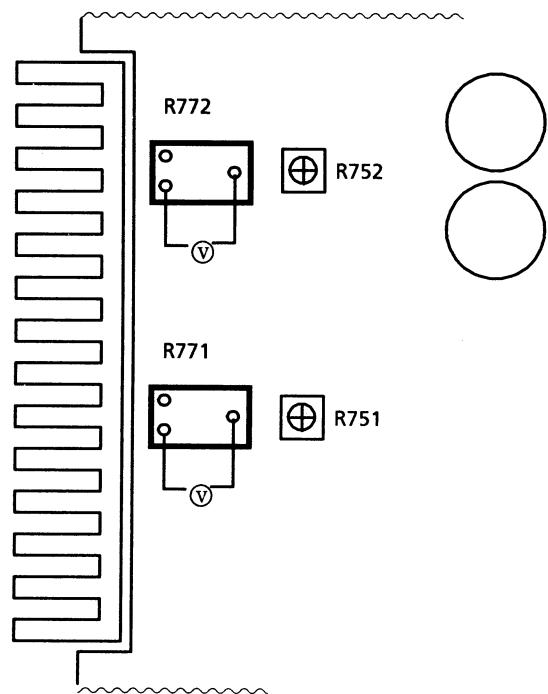
⑩ ... E73273-003

⑤ ... E74266-002

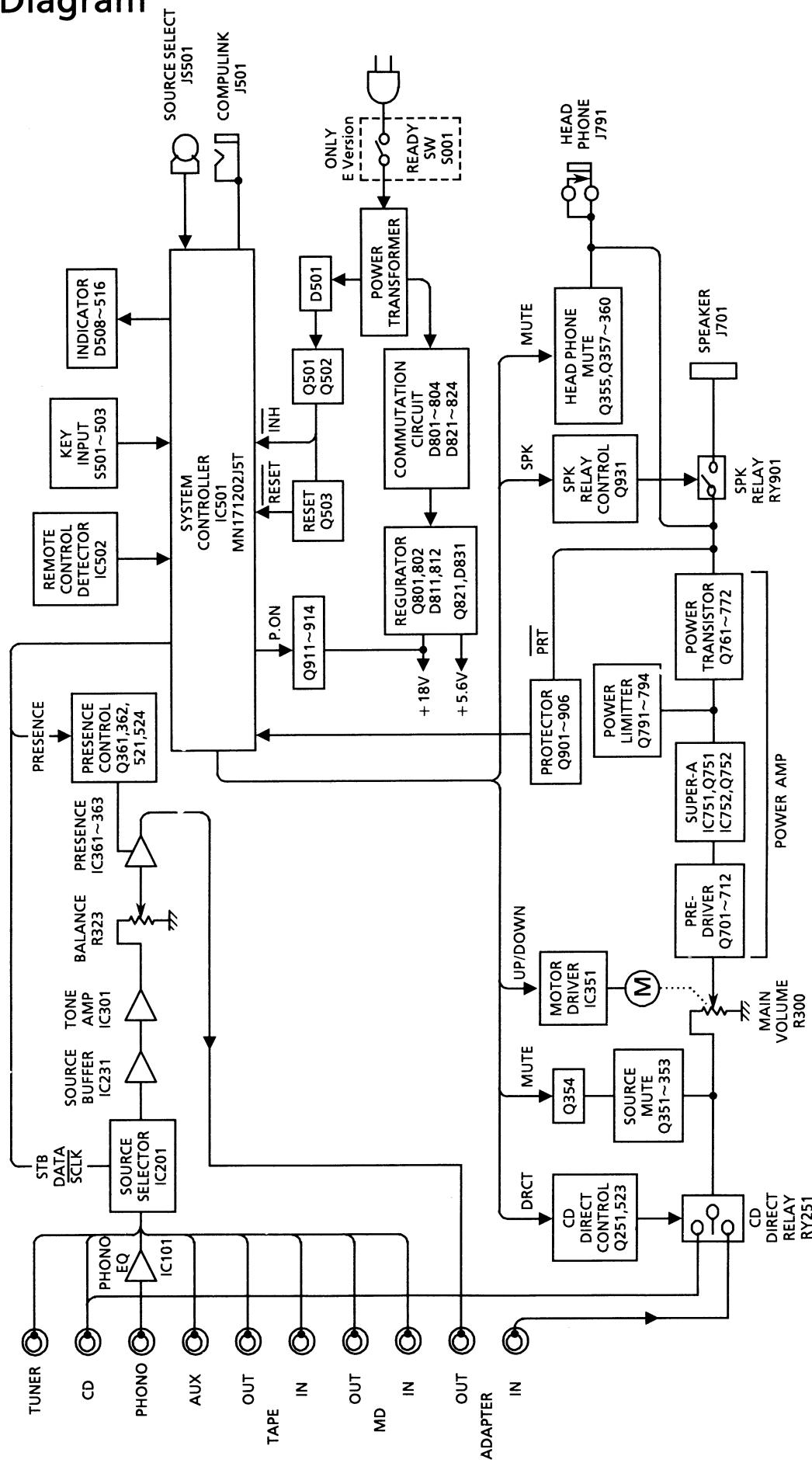
ADJUSTMENT PROCEDURES

■ Idling Current

- (1) Set the volume control to minimum during this adjustment.
- (2) Turn R751 and R752 fully counterclockwise before the power is switch on.
- (3) Always start from cold, and allow 5 minutes to warm up before adjustment.
If the heatsink is already warm from previous use the correct adjustment can not be made.
- (4) Connect a DC voltmeter to R771 resistor's leads for left channel, or to R772 for right channel.
- (5) Adjust R751 for left channel, or R752 for right channel, so that the DC voltmeter becomes 4.5 mV ~ 15mV.

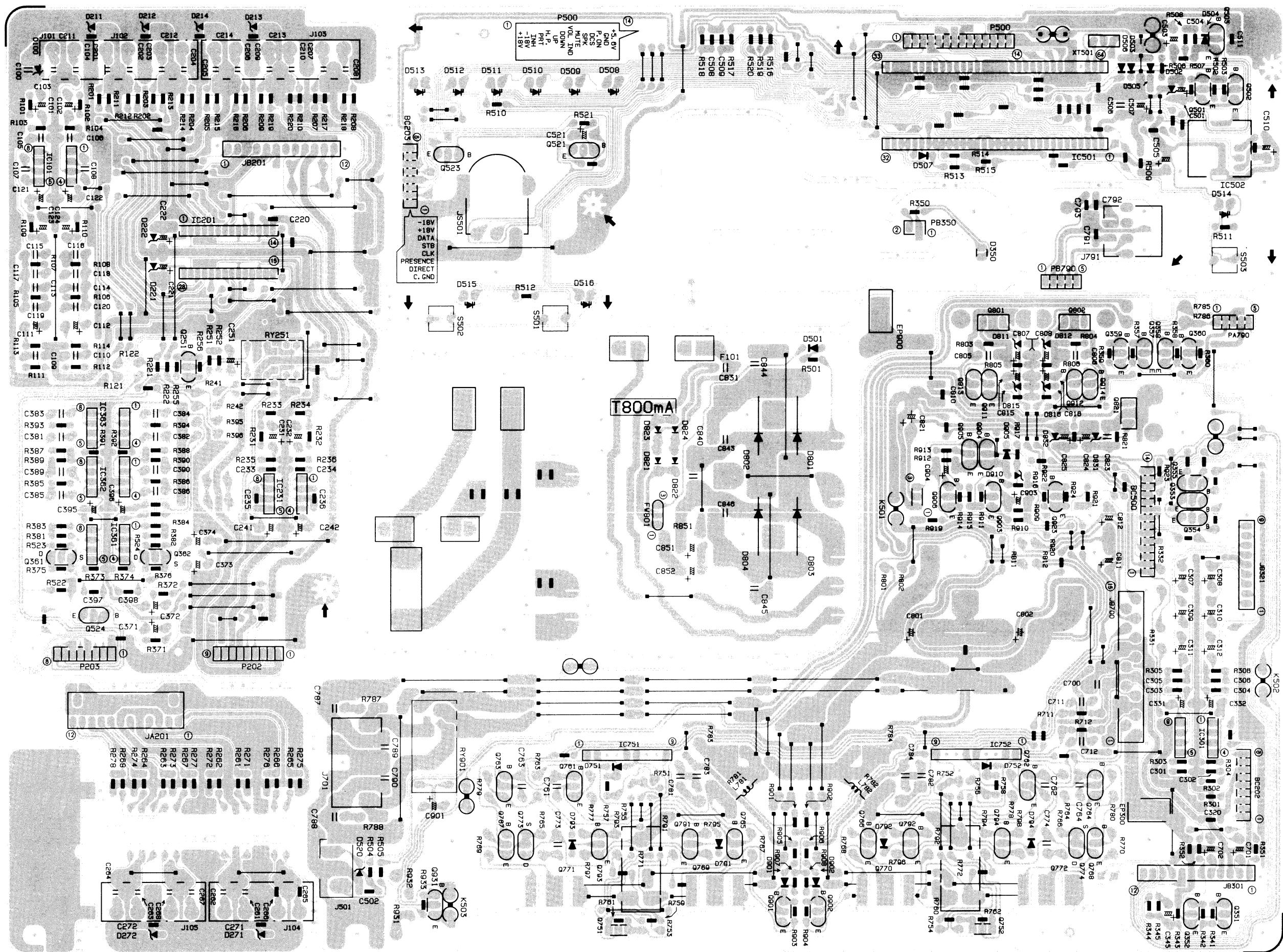


Block Diagram

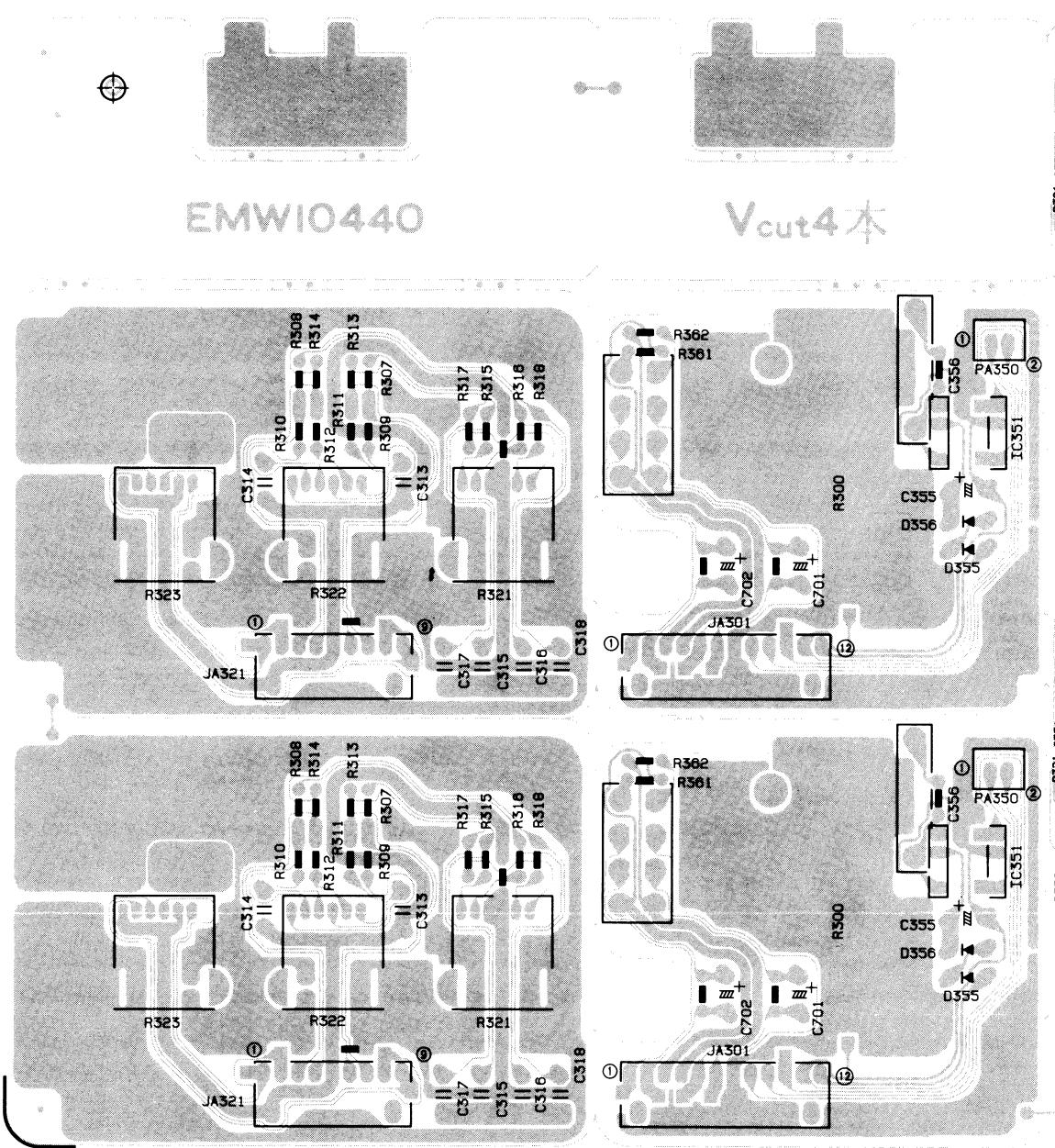


Printed Circuit Boards

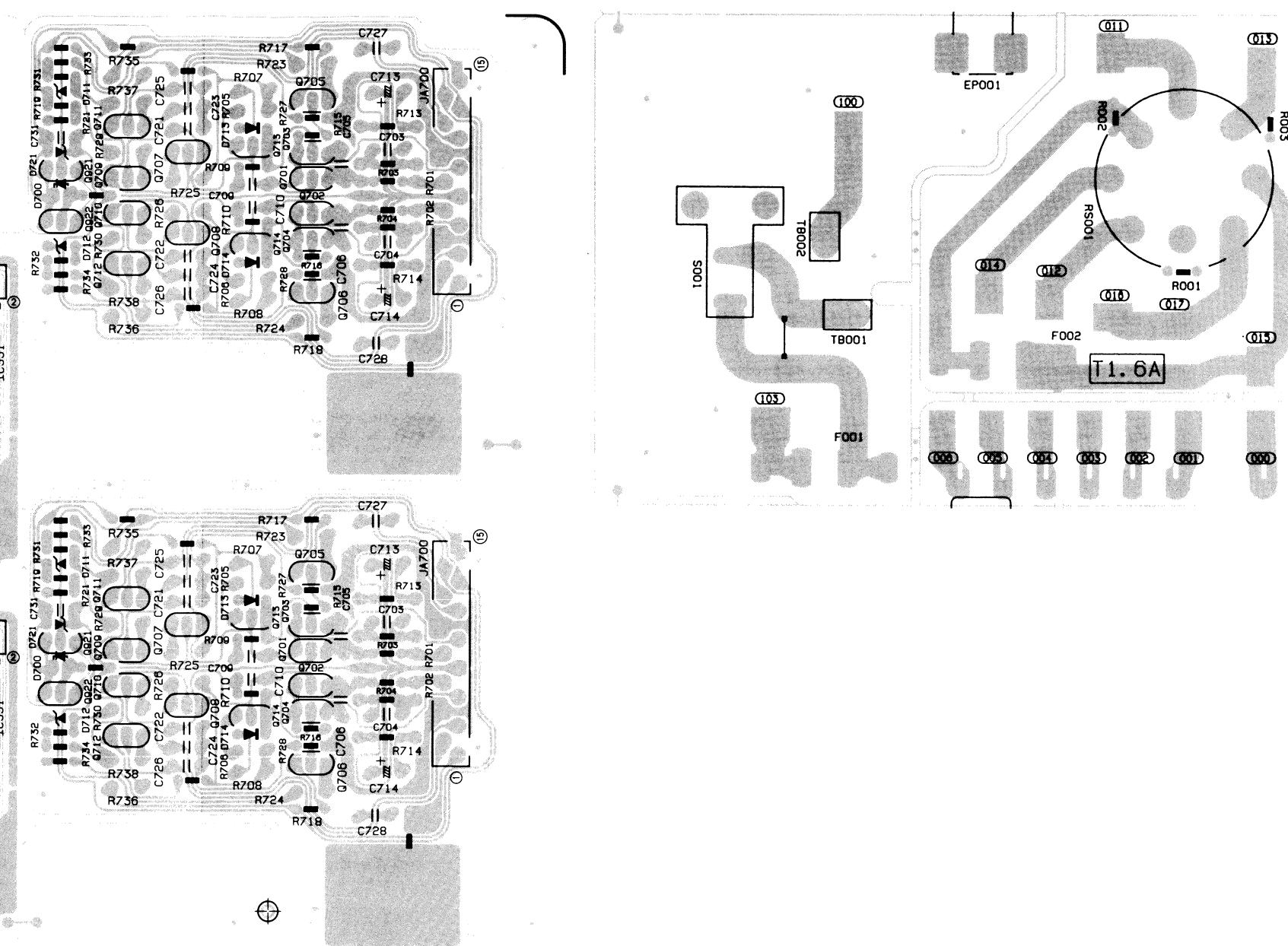
■ Main P. C. Board(ENH-272)



■ Pre Driver & Volume P. C. Board(ENE-095)

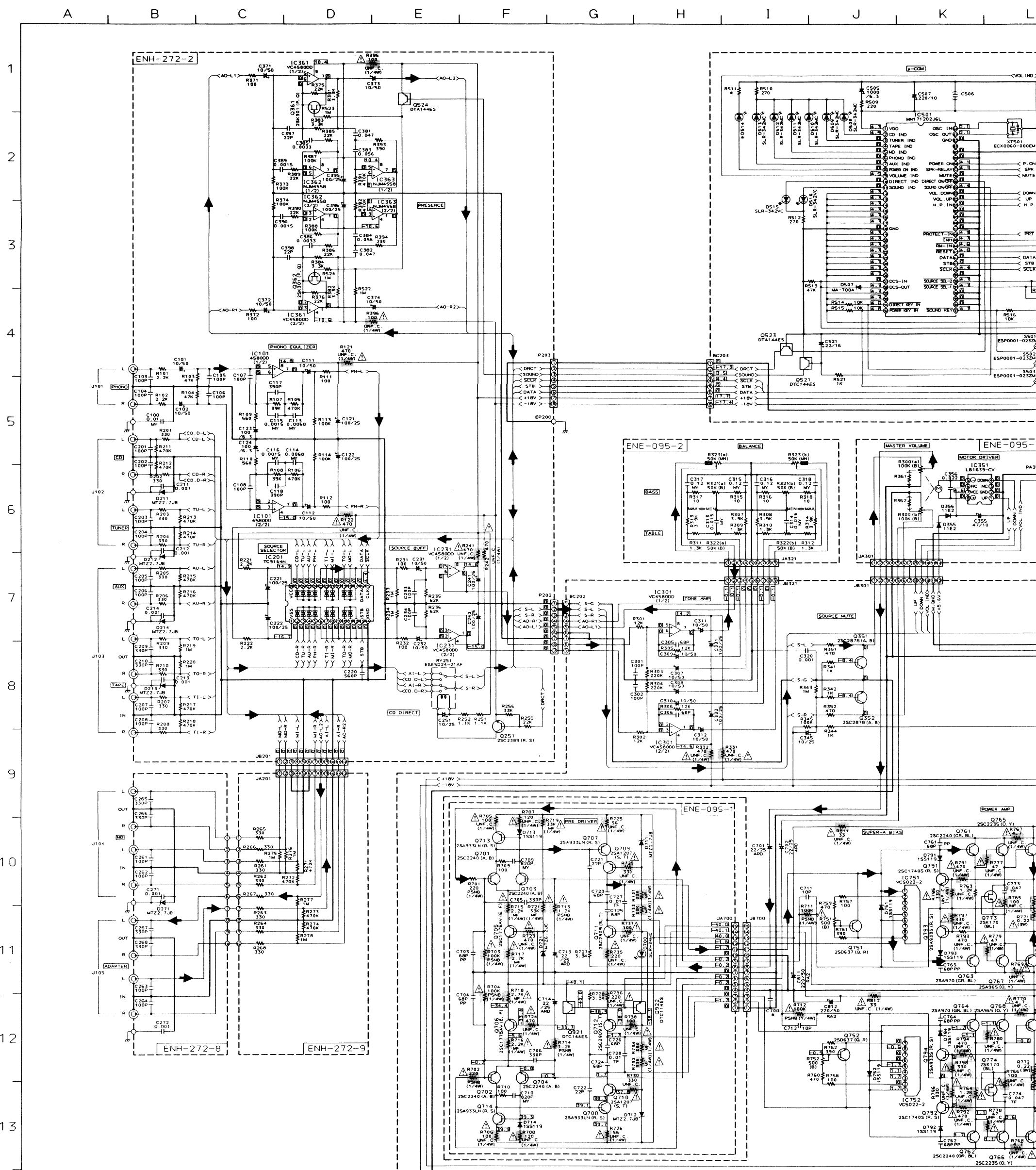


■ Power Supply P. C. Board(END-099)

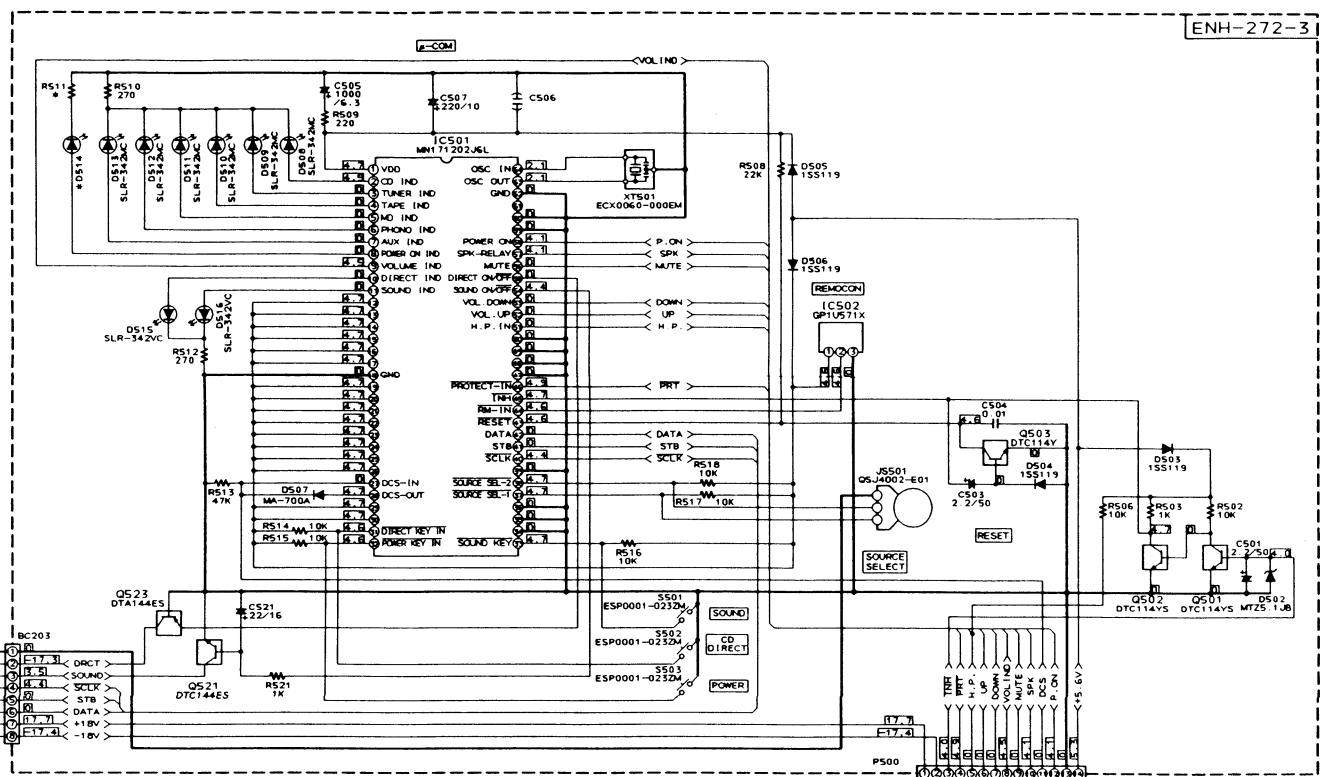


Schematic Diagrams

(1) Audio Section



H I J K L M N O P Q R S

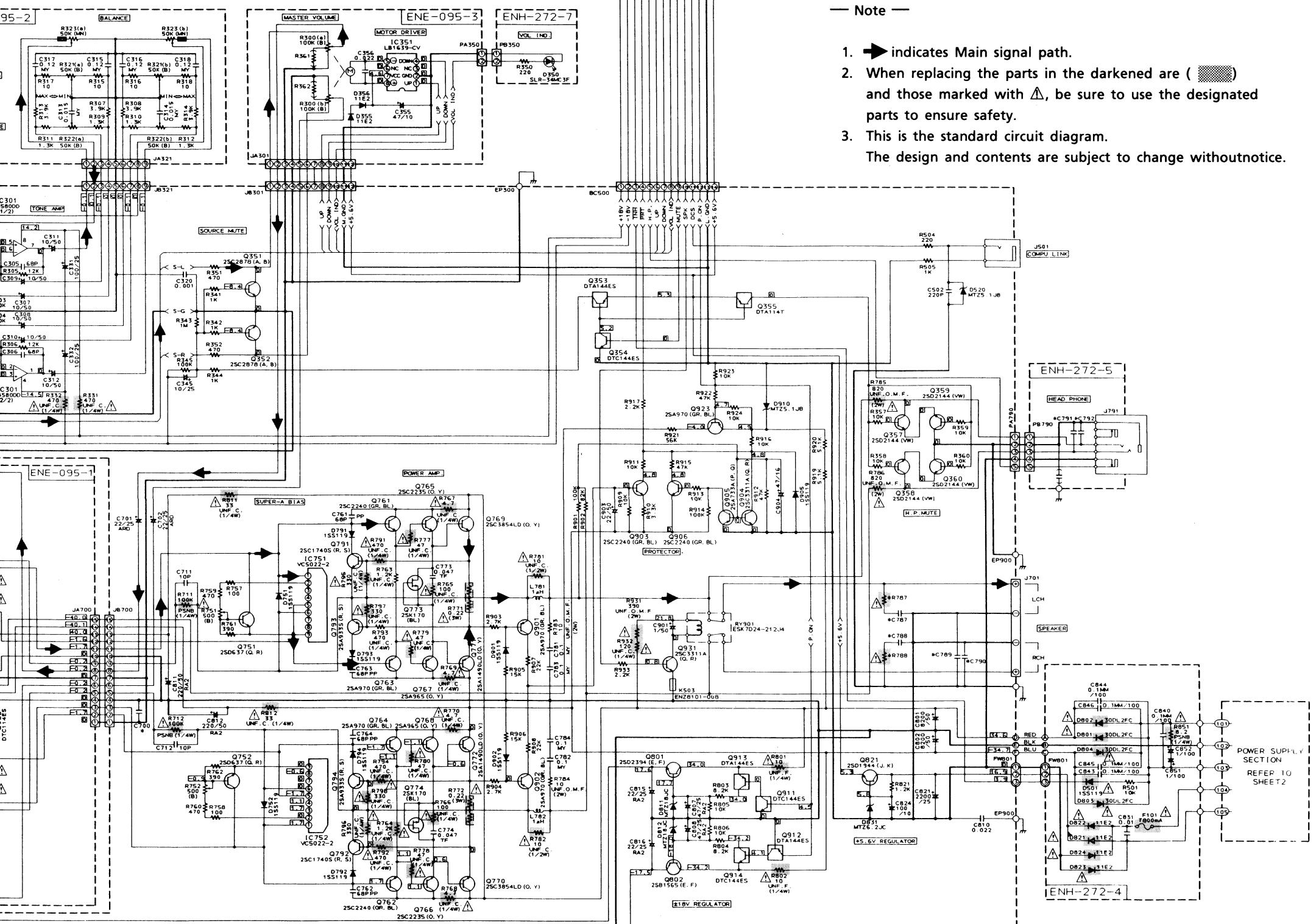


MARK	EF, EN, G	VS, UB, UT, U	BS
C780	0.022	H0HE	0.022
C787, 788	0.1 TF	H0HE	0.1 TF
C789, 790	0.01 TF	H0HE	0.01 TF
C791, 792	0.001	H0HE	0.001
R787, 788	10 UNF, F (1/4W)	H0HE	10 UNF, F (1/4W)
DS14	SLR-1425E447	SLR-1425E447	SLA-1486TA4
RS11	180	180	4.70

— Note —

- indicates Main signal path.
- When replacing the parts in the darkened area (■) and those marked with △, be sure to use the designated parts to ensure safety.
- This is the standard circuit diagram.

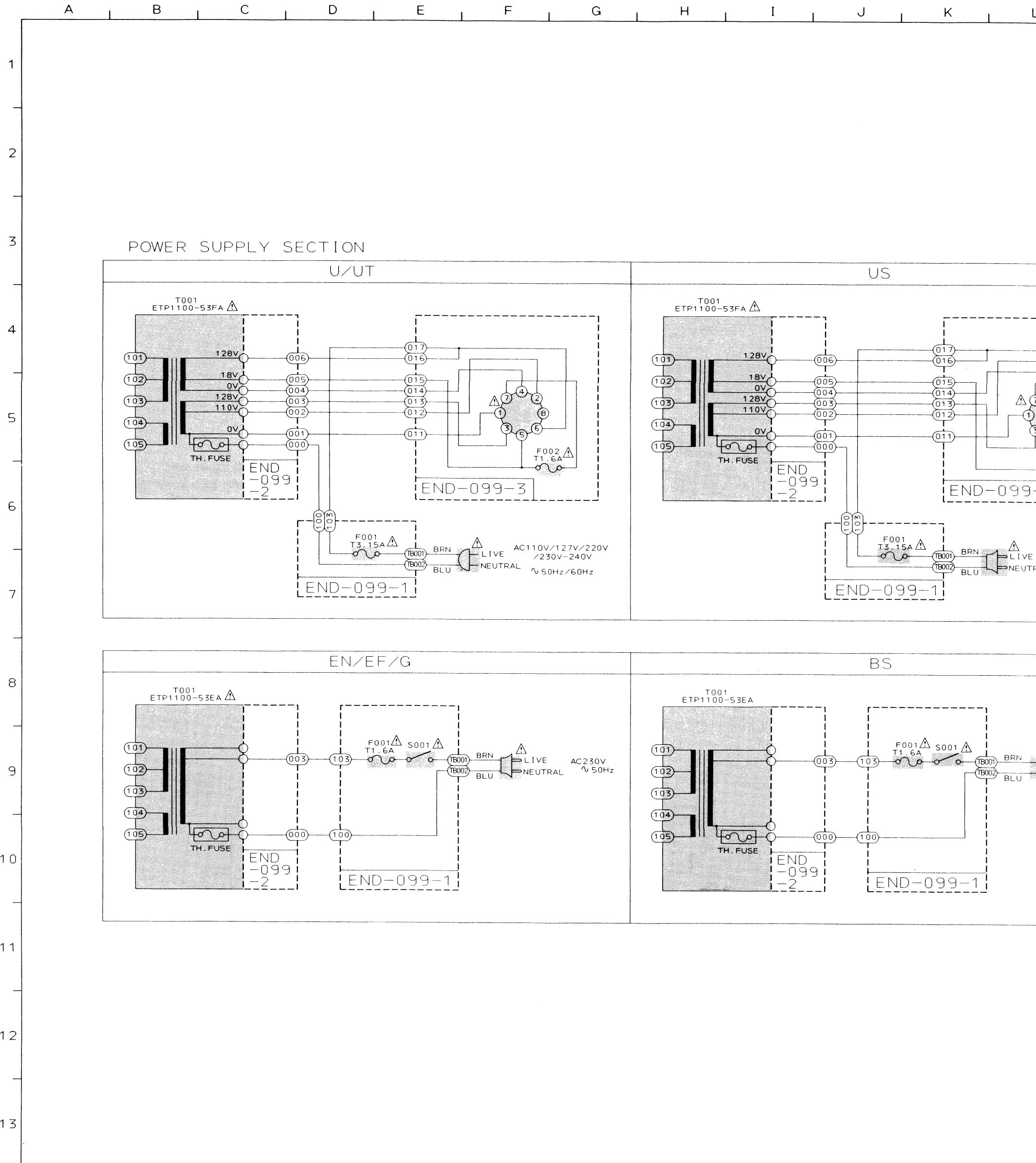
The design and contents are subject to change without notice.

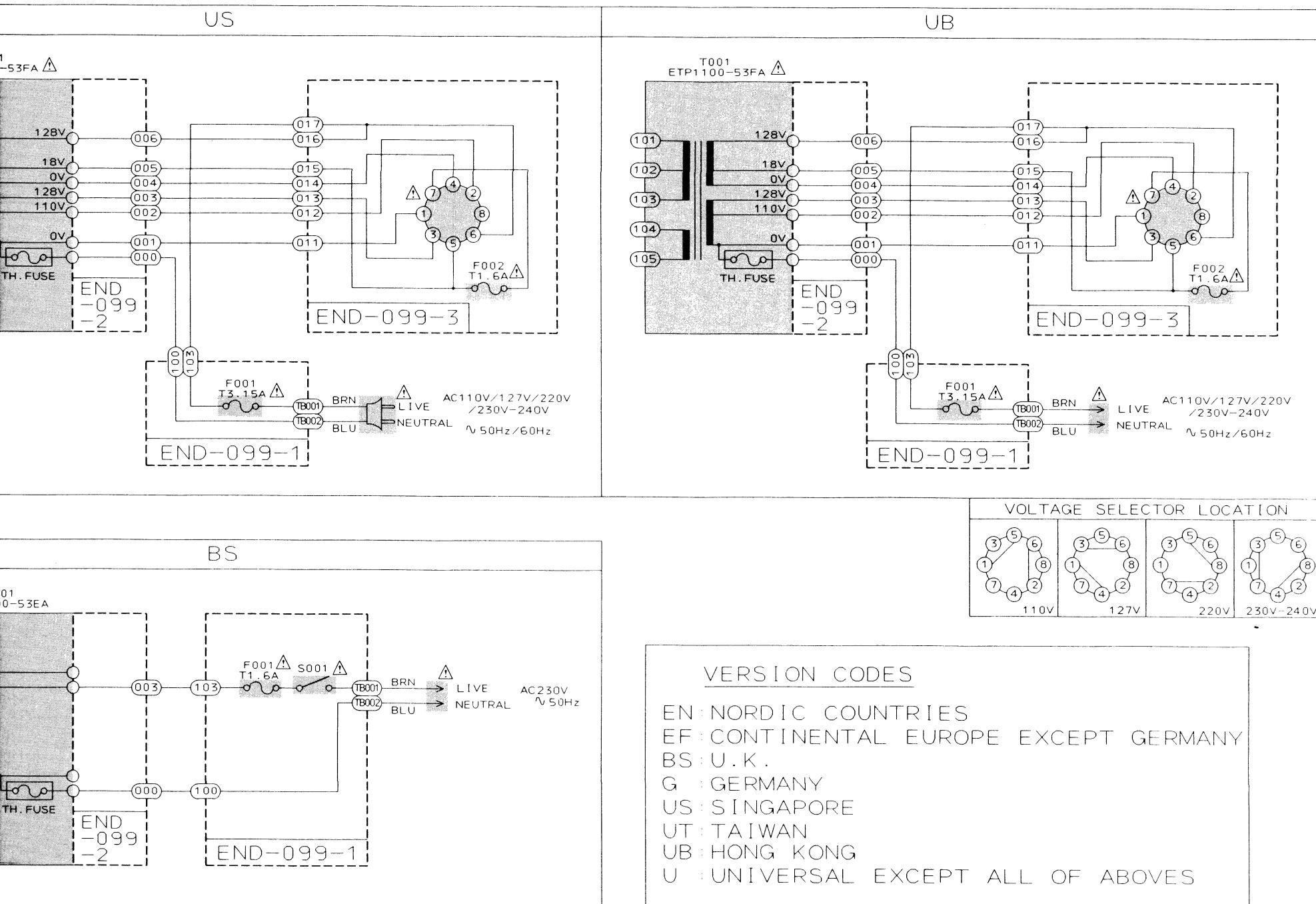


ENH-272-11

POWER SUPPLY SECTION
REFER TO SHEET 2

(2) Power Supply Section





PARTS LIST

Note : All printed circuit board assemblies are not available as service parts.

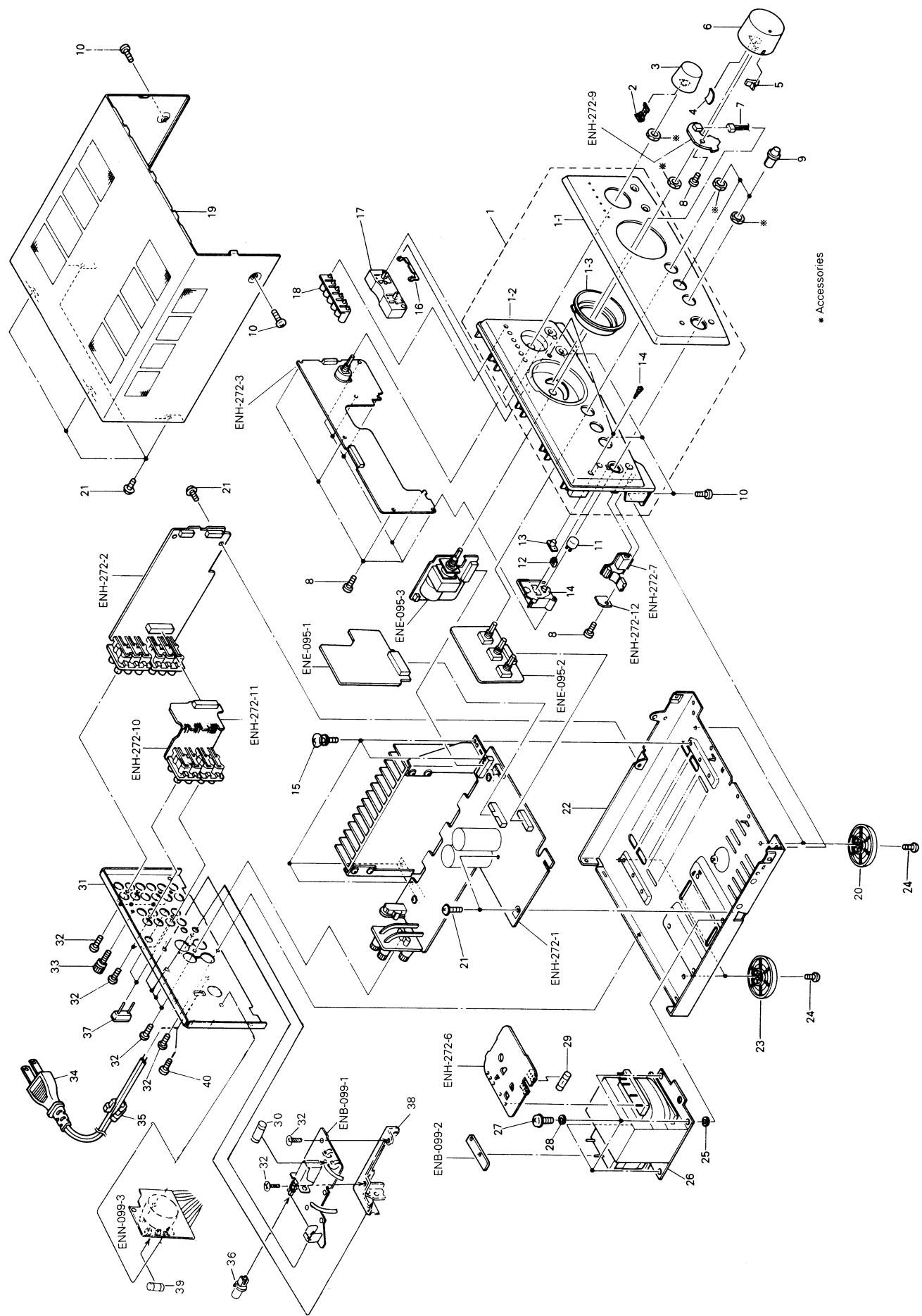
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General Exploded View and Parts List

Symbol No.

M	1	M	M
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■ Parts List

Symbol No. M 1 M M

Item	Part Number	Part Name	Q'ty	Description	Area
1	EFP-AXF1GDBS(S)	FRONT PANEL ASS'Y	1		BS
	EFP-AXF1GDE(S)	FRONT PANEL ASS'Y	1		Except BS
1-1	E102861-002	FRONT PANEL	1		Except BS
	E102861-003	FRONT PANEL	1		BS
1-2	E102863-002ST	FRONT BASE	1		
1-3	E308998-002	KNOB RING	1		
1-4	E408132-001	SPRING	2		
2	E408159-001	SPACER	1	SOURCE	
3	E308969-002	KNOB	1	SOURCE	
4	E408294-001	SPACER	1	VOLEM	
5	E408129-001ST	INDICATOR LENS	1		
6	E308968-002	M.VOL KNOB	1		
7	EWS142-002B	SOCKET WIRE ASSY	1	AW990	
8	SDSF2608Z	SCREW	10		
9	E408127-004	KNOB	3	BALANCE,ETC	
10	SDSG3008N	TAPPING SCREW	5		
11	E408130-002	CAP	1		
12	E408128-001ST	POWER INDICATOR	1		Except BS
	E408128-002ST	POWER INDICATOR	1		BS
13	E408131-001	REMOCON PLATE	1		
14	E308967-002	PUSH BUTTON	1		
15	E74266-002	SPECIAL SCREW	4		
16	E408126-001ST	INDICATOR LENS	1		
17	E308966-002	PUSH BUTTON	1		
18	E308965-001ST	INDICATOR LENS	1		
19	E208174-005(S)	METAL COVER	1		
20	E75281-008	FOOT	2	FRONT	
21	GBSG3008CC	TAPPING SCREW	7		
22	E102864-005	CHASSIS BASE	1		
23	E75281-007	FOOT	2	REAR	
24	SBST3008Z	TAPPING SCREW	4		
25	E407406-002	SPACER	4		
26	ETP1100-53EA	POWER TRANSFORMER	1	T001	EF,EN,G,BS
27	ETP1100-53FA	POWER TRANSFORMER	1	T001	U,UB,US,UT
	E61661-003	SPECIAL SCREW	4		
28	WAS4000CC	WASHER	4		
29	QMF51E2-R80S	FUSE	1	F101	
30	QMF51A2-3R15	FUSE	1	F001	U,UB,US,UT
	QMF51E2-1R6J1	FUSE	1	F001	EF,EN,G,BS
31	E208175-003	REAR PANEL	1		BS,EF,EN,G
	E208175-004	REAR PANEL	1		U,UB,US,UT
32	E73273-003	SPECIAL SCREW	13		BS,EF,EN,G
	E73273-003	SPECIAL SCREW	15		U,UB,US,UT
33	E408091-001	EARTH PLUG	1		
34	QMP3900-200	POWER CORD	1		EF,EN,G,US
	QMP5530-0085BS	POWER CORD	1		BS,UB
	QMP7520-200	POWER CORD	1		U,UT
35	QHS4077-108	CORD STOPPER	1		
36	E407321-002SM	PUSH BUTTON	1		BS,EF,EN,G
37	EMZ3001-002	SHORT PIN	2		

Item	Part Number	Part Name	Q'ty	Description	Area
38	E406074-001	P.C.BOARD BRACKET	1		
39	QMF51E2-1R6J1	FUSE	1	F002	U,UB,US,UT
40	E307572-001	VINYL TIE	1		
-	E309384-016	RATING LABEL	2		UT
-	E407619-048	FTZ LABEL	1		G
-	E408843-001	APPROVAL LABEL	1		EN
-	E408919-001	RATING LABEL	1		BS
-	QZL1031-101	LABEL	1		EF
-	E61029-005	NUMBER LABEL	1		

The Marks for Designated Areas

BS the U.K.	EF Continental Europe	G Germany	EN Nordic Countries
UB Hong Kong	US Singapore	UT Taiwan	U Universal

No mark indicates all area.

Electrical Parts List

■ ENH-272 Mother PC Board Ass'y

TRANSISTORS

ITEM	PART NUMBER	DESCRIPTION	AREA
Q251	2SC2389(S,E)	SI.TRANSIST ROHM	
Q351	2SC2878(B)	SI.TRANSIST NEC	
Q352	2SC2878(B)	SI.TRANSIST NEC	
Q353	DTA144ES	DIGITAL TRA ROHM	
Q354	DTC144ES	DIGITAL TRA ROHM	
Q355	DTA114TS	DIGITAL TRA ROHM	
Q357	2SD2144S(VW)	SI.TRANSIST ROHM	
Q358	2SD2144S(VW)	SI.TRANSIST ROHM	
Q359	2SD2144S(VW)	SI.TRANSIST ROHM	
Q360	2SD2144S(VW)	SI.TRANSIST ROHM	
Q361	2SK301(P,Q)	F.E.T.	
Q362	2SK301(P,Q)	F.E.T.	
Q501	DTC114YS	DIGITAL TRA ROHM	
Q502	DTC114YS	DIGITAL TRA ROHM	
Q503	DTC114YS	DIGITAL TRA ROHM	
Q521	DTC144ES	DIGITAL TRA ROHM	
Q523	DTA144ES	DIGITAL TRA ROHM	
Q524	DTA144ES	DIGITAL TRA ROHM	
Q751	2SD637(Q,R)	SI.TRANSIST MATSUSHITA	
Q752	2SD637(Q,R)	SI.TRANSIST MATSUSHITA	
Q761	2SC2240(GR,BL)	SI.TRANSIST TOSHIBA	
Q762	2SC2240(GR,BL)	SI.TRANSIST TOSHIBA	
Q763	2SA970(GR)	SI.TRANSIST TOSHIBA	
Q764	2SA970(GR)	SI.TRANSIST TOSHIBA	
Q765	2SC2235(O,Y)	SI.TRANSIST TOSHIBA	
Q766	2SC2235(O,Y)	SI.TRANSIST TOSHIBA	
Q767	2SA965(Y)	SI.TRANSIST TOSHIBA	
Q768	2SA965(Y)	SI.TRANSIST TOSHIBA	
Q769	2SC3854LD(O,Y)	SI.TRANSIST SANKEN	
Q770	2SC3854LD(O,Y)	SI.TRANSIST SANKEN	
Q771	2SA1490LD(O,Y)	SI.TRANSIST SANKEN	
Q772	2SA1490LD(O,Y)	SI.TRANSIST SANKEN	
Q773	2SK170(BL)	F.E.T. TOSHIBA	
Q774	2SK170(BL)	F.E.T. TOSHIBA	
Q791	2SC1740S(R,S)	SI.TRANSIST ROHM	
Q792	2SC1740S(R,S)	SI.TRANSIST ROHM	
Q793	2SA933S(RS)	SI.TRANSIST	
Q794	2SA933S(RS)	SI.TRANSIST	
Q801	2SD2394(E,F)	SI.TRANSIST ROHM	
Q802	2SB1565(E,F)	SI.TRANSIST ROHM	
Q821	2SD1944(J,K)	SI.TRANSIST ROHM	
Q901	2SA970(GR)	SI.TRANSIST TOSHIBA	
Q902	2SA970(GR)	SI.TRANSIST TOSHIBA	
Q903	2SC2240(GR,BL)	SI.TRANSIST TOSHIBA	
Q904	2SC3311A(Q,R)	SI.TRANSIST MATSUSHITA	
Q905	2SA733A(P,K)	SI.TRANSIST NEC	
Q906	2SC2240(GR,BL)	SI.TRANSIST TOSHIBA	
Q911	DTC144ES	DIGITAL TRA ROHM	
Q912	DTA144ES	DIGITAL TRA ROHM	
Q913	DTA144ES	DIGITAL TRA ROHM	
Q914	DTC144ES	DIGITAL TRA ROHM	
Q923	2SA970(GR)	SI.TRANSIST TOSHIBA	
Q931	2SC3311A(Q,R)	SI.TRANSIST MATSUSHITA	

I. C. S.

△ ITEM	PART NUMBER	DESCRIPTION	AREA
IC101	NJM4580DD	I.CCMONO-AN DAINICHI	
IC201	TC9164N	I.CCDIGI-MO TOSHIBA	
IC231	VC4580DD	I.CCMONO-AN DAINICHI	
IC301	VC4580DD	I.CCMONO-AN DAINICHI	
IC361	VC4580DD	I.CCMONO-AN DAINICHI	
IC362	NJM4558D	I.CCMONO-AN	
IC363	NJM4558D	I.CCMONO-AN	
IC501	MN171202J6L	I.C.	BS
IC501	MN171202J6L	I.C.	EF
IC501	MN171202J6L	I.C.	EN
IC501	MN171202J6L	I.C.	GU
IC501	MN171202J6L	I.C.	UB
IC501	MN171202J6L	I.C.	US
IC501	MN171202J6L	I.C.	UT
IC502	SP1U571X	INFRARED DE SHARP	
IC751	VC5022-2	I.CCMONO-AN SANYO	
IC752	VC5022-2	I.CCMONO-AN SANYO	

DIODES

△	ITEM	PART NUMBER	DESCRIPTION		AREA
	D508	SLR-342DC47	L.E.D.	ROHM	
	D509	SLR-342DC47	L.E.D.	ROHM	
	D510	SLR-342DC47	L.E.D.	ROHM	
	D511	SLR-342DC47	L.E.D.	ROHM	
	D512	SLR-342DC47	L.E.D.	ROHM	
	D513	SLR-342DC47	L.E.D.	ROHM	
	D514	SLA-380LT	L.E.D.	ROHM	BS
	D514	SLR-342VC3F	L.E.D.	ROHM	EF
	D514	SLR-342VC3F	L.E.D.	ROHM	EN
	D514	SLR-342VC3F	L.E.D.	ROHM	G
	D514	SLR-342VC3F	L.E.D.	ROHM	U
	D514	SLR-342VC3F	L.E.D.	ROHM	UB
	D514	SLR-342VC3F	L.E.D.	ROHM	US
	D514	SLR-342VC3F	L.E.D.	ROHM	UT
	D515	SLR-342VC3F	L.E.D.	ROHM	
	D516	SLR-342VC3F	L.E.D.	ROHM	
	D520	MTZ5.1JB	ZENER DIODE	ROHM	
△	D751	1SS119	SI.DIODE		
△	D752	1SS119	SI.DIODE		
△	D791	1SS119	SI.DIODE		
△	D792	1SS119	SI.DIODE		
△	D793	1SS119	SI.DIODE		
△	D794	1SS119	SI.DIODE		
△	D801	30DL2FC	SI.DIODE	NIHONINTER	
△	D802	30DL2FC	SI.DIODE	NIHONINTER	
△	D803	30DL2FC	SI.DIODE	NIHONINTER	
△	D804	30DL2FC	SI.DIODE	NIHONINTER	
△	D811	MT218JC	ZENER DIODE	ROHM	
△	D812	MT218JC	ZENER DIODE	ROHM	
△	D821	11E2	SI.DIODE	NIHONINTER	
△	D822	11E2	SI.DIODE	NIHONINTER	
△	D823	11E2	SI.DIODE	NIHONINTER	
△	D824	11E2	SI.DIODE	NIHONINTER	
△	D831	MT26.2JC	ZENER DIODE	ROHM	
△	D901	1SS119	SI.DIODE	↖↖↖↖	
	D902	1SS119	SI.DIODE	↖↖↖↖	
	D905	1SS119	SI.DIODE	↖↖↖↖	
	D910	MTZ5.1JB	ZENER DIODE	ROHM	

CAPACITORS

Δ	ITEM	PART NUMBER	DESCRIPTION				AREA
	C100	QFN81HJ-103	0.01MF	50V	METAL.MYLA		
	C101	QETC1HM-106ZN	10MF	50V	AL E.CAPAC		
	C102	QETC1HM-106ZN	10MF	50V	AL E.CAPAC		
	C103	QCS31HJ-101Z	100PF	50V	CER.CAPACI		
	C104	QCS31HJ-101Z	100PF	50V	CER.CAPACI		
	C105	QCS31HJ-101Z	100PF	50V	CER.CAPACI		BS
	C105	QCS31HJ-101Z	100PF	50V	CER.CAPACI		EF
	C105	QCS31HJ-101Z	100PF	50V	CER.CAPACI		EN
	C105	QCS31HJ-101Z	100PF	50V	CER.CAPACI		U
	C105	QCS31HJ-101Z	100PF	50V	CER.CAPACI		UB
	C105	QCS31HJ-101Z	100PF	50V	CER.CAPACI		US
	C105	QCS31HJ-101Z	100PF	50V	CER.CAPACI		UT
	C106	QCS31HJ-101Z	100PF	50V	CER.CAPACI		BS
	C106	QCS31HJ-101Z	100PF	50V	CER.CAPACI		EF
	C106	QCS31HJ-101Z	100PF	50V	CER.CAPACI		EN
	C106	QCS31HJ-101Z	100PF	50V	CER.CAPACI		U
	C106	QCS31HJ-101Z	100PF	50V	CER.CAPACI		G
	C107	QCS31HJ-101Z	100PF	50V	CER.CAPACI		BS
	C107	QCS31HJ-101Z	100PF	50V	CER.CAPACI		EF
	C107	QCS31HJ-101Z	100PF	50V	CER.CAPACI		EN
	C107	QCS31HJ-101Z	100PF	50V	CER.CAPACI		G
	C107	QCS31HJ-101Z	100PF	50V	CER.CAPACI		U
	C107	QCS31HJ-101Z	100PF	50V	CER.CAPACI		UB
	C107	QCS31HJ-101Z	100PF	50V	CER.CAPACI		US
	C107	QCS31HJ-101Z	100PF	50V	CER.CAPACI		EF
	C107	QCS31HJ-101Z	100PF	50V	CER.CAPACI		UT
	C108	QCS31HJ-101Z	100PF	50V	CER.CAPACI		BS
	C108	QCS31HJ-101Z	100PF	50V	CER.CAPACI		EF
	C108	QCS31HJ-101Z	100PF	50V	CER.CAPACI		EN
	C108	QCS31HJ-101Z	100PF	50V	CER.CAPACI		U
	C108	QCS31HJ-101Z	100PF	50V	CER.CAPACI		UT
	C108	QCS31HJ-101Z	100PF	50V	CER.CAPACI		BS
	C108	QCS31HJ-101Z	100PF	50V	CER.CAPACI		EF
	C108	QCS31HJ-101Z	100PF	50V	CER.CAPACI		EN
	C108	QCS31HJ-101Z	100PF	50V	CER.CAPACI		U
	C108	QCS31HJ-101Z	100PF	50V	CER.CAPACI		UB
	C108	QCS31HJ-101Z	100PF	50V	CER.CAPACI		US
	C108	QCS31HJ-101Z	100PF	50V	CER.CAPACI		EF
	C111	QETC1HM-106ZN	10MF	50V	AL E.CAPAC		
	C112	QETC1HM-106ZN	10MF	50V	AL E.CAPAC		
	C113	QFN81HJ-68Z	6800PF	50V	METAL.MYLA		
	C114	QFN81HJ-152	1500PF	50V	METAL.MYLA		
	C115	QFN81HJ-152	1500PF	50V	METAL.MYLA		
	C116	QFN81HJ-152	1500PF	50V	METAL.MYLA		
	C117	QCS31HJ-391Z	390PF	50V	CER.CAPACI		
	C118	QCS31HJ-391Z	390PF	50V	CER.CAPACI		
	C121	QETC1EM-107ZN	100MF	25V	E.CAPACITO		
	C122	QETC1EM-107ZN	100MF	25V	E.CAPACITO		
	C123	QETCOJM-107ZM	100MF	6.3V	AL E.CAPAC		
	C124	QETCOJM-107ZM	100MF	6.3V	AL E.CAPAC		
	C201	QCS31HJ-101Z	100PF	50V	CER.CAPACI		
	C202	QCS31HJ-101Z	100PF	50V	CER.CAPACI		
	C203	QCS31HJ-101Z	100PF	50V	CER.CAPACI		
	C204	QCS31HJ-101Z	100PF	50V	CER.CAPACI		
	C205	QCS31HJ-101Z	100PF	50V	CER.CAPACI		
	C206	QCS31HJ-101Z	100PF	50V	CER.CAPACI		
	C207	QCS31HJ-101Z	100PF	50V	CER.CAPACI		
	C208	QCS31HJ-101Z	100PF	50V	CER.CAPACI		
	C209	QCS31HJ-331Z	330PF	50V	CER.CAPACI		BS
	C209	QCS31HJ-331Z	330PF	50V	CER.CAPACI		EF
	C209	QCS31HJ-331Z	330PF	50V	CER.CAPACI		EN

CAPACITORS

△	ITEM	PART NUMBER	DE	S	C	R	I	P	T	N	AREA
	C209	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					G
	C209	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					U
	C209	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					UB
	C209	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					US
	C209	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					UT
	C210	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					BS
	C210	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					EF
	C210	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					EN
	C210	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					G
	C210	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					U
	C210	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					UB
	C210	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					US
	C210	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					UT
	C211	QCBB1HK-102Y	1000PF	50V	CER.	CAPACI					
	C212	QCBB1HK-102Y	1000PF	50V	CER.	CAPACI					
	C213	QCBB1HK-102Y	1000PF	50V	CER.	CAPACI					
	C214	QCBB1HK-102Y	1000PF	50V	CER.	CAPACI					
	C220	QCBB1HK-561Y	560PF	50V	CER.	CAPACI					
	C221	QETC1EM-107ZN	100MF	25V	E.	CAPACITO					
	C222	QETC1EM-107ZN	100MF	25V	E.	CAPACITO					
	C231	QETC1HN-106ZN	10MF	50V	AL	E.CAPAC					
	C232	QETC1HM-106ZN	10MF	50V	AL	E.CAPAC					
	C233	QCBB1HK-101Y	100PF	50V	CER.	CAPACI					
	C234	QCBB1HK-101Y	100PF	50V	CER.	CAPACI					
	C241	QETC1EM-107ZN	100MF	25V	E.	CAPACITO					
	C242	QETC1EM-107ZN	100MF	25V	E.	CAPACITO					
	C251	QETB1EM-106	10MF	25V	AL	E.CAPAC					
	C261	QCS31HJ-101Z	100PF	50V	CER.	CAPACI					
	C262	QCS31HJ-101Z	100PF	50V	CER.	CAPACI					
	C263	QCS31HJ-101Z	100PF	50V	CER.	CAPACI					
	C264	QCS31HJ-101Z	100PF	50V	CER.	CAPACI					
	C265	QCBB1HK-331Y	330PF	50V	CER.	CAPACI					BS
	C265	QCBB1HK-331Y	330PF	50V	CER.	CAPACI					EF
	C265	QCBB1HK-331Y	330PF	50V	CER.	CAPACI					EN
	C265	QCBB1HK-331Y	330PF	50V	CER.	CAPACI					G
	C265	QCBB1HK-331Y	330PF	50V	CER.	CAPACI					U
	C265	QCBB1HK-331Y	330PF	50V	CER.	CAPACI					UB
	C265	QCBB1HK-331Y	330PF	50V	CER.	CAPACI					US
	C265	QCBB1HK-331Y	330PF	50V	CER.	CAPACI					UT
	C266	QCBB1HK-331Y	330PF	50V	CER.	CAPACI					BS
	C266	QCBB1HK-331Y	330PF	50V	CER.	CAPACI					EF
	C266	QCBB1HK-331Y	330PF	50V	CER.	CAPACI					EN
	C266	QCBB1HK-331Y	330PF	50V	CER.	CAPACI					U
	C266	QCBB1HK-331Y	330PF	50V	CER.	CAPACI					UB
	C266	QCBB1HK-331Y	330PF	50V	CER.	CAPACI					US
	C266	QCBB1HK-331Y	330PF	50V	CER.	CAPACI					UT
	C267	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					EN
	C267	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					G
	C267	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					U
	C267	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					UB
	C267	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					US
	C267	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					UT
	C268	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					BS
	C268	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					EF
	C268	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					EN
	C268	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					G
	C268	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					U
	C268	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					UB
	C268	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					US
	C268	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					UT
	C269	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					
	C269	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					
	C269	QCS31HJ-331Z	330PF	50V	CER.	CAPACI					
	C270	QETC1EM-106	10MF	25V	AL	E.CAPAC					
	C271	QETC1HN-106ZN	10MF	25V	AL	E.CAPAC					
	C272	QETC1HM-106ZN	10MF	25V	AL	E.CAPAC					
	C272	QETC1HM-106ZN	10MF	25V	AL	E.CAPAC					
	C301	QCBB1HK-101Y	100PF	50V	CER.	CAPACI					
	C302	QCBB1HK-101Y	100PF	50V	CER.	CAPACI					
	C305	QCSB1HJ-680	68PF	50V	CER.	CAPACI					
	C306	QCSB1HJ-680	68PF	50V	CER.	CAPACI					
	C307	QEKS1EM-106	10MF	25V	AL	E.CAPAC					
	C308	QEKS1EM-106	10MF	25V	AL	E.CAPAC					
	C309	QEKS1EM-106	10MF	25V	AL	E.CAPAC					
	C310	QEKS1EM-106	10MF	25V	AL	E.CAPAC					
	C311	QEKS1EM-106	10MF	25V	AL	E.CAPAC					
	C312	QEKS1EM-106	10MF	25V	AL	E.CAPAC					
	C320	QGCB1HK-102	1000PF	50V	CER.	CAPACI					
	C331	QETC1EM-107ZN	100MF	25V	E.	CAPACITO					
	C332	QETC1EM-107ZN	100MF	25V	E.	CAPACITO					
	C345	QETB1EM-106	10MF	25V	AL	E.CAPAC					
	C371	QETC1HM-106ZN	10MF	50V	AL	E.CAPAC					
	C372	QETC1HM-106ZN	10MF	50V	AL	E.CAPAC					
	C373	QETC1HM-106ZN	10MF	50V	AL	E.CAPAC					
	C374	QETC1HM-106ZN	10MF	50V	AL	E.CAPAC					
	C381	QFVB1HJ-474N	0.47MF	50V	THIN	FILM					
	C382	QFVB1HJ-474N	0.47MF	50V	THIN	FILM					
	C383	QFVC1HJ-563ZN	0.056MF	50V	METAL	.MYLA					
	C384	QFVC1HJ-563ZN	0.056MF	50V	METAL	.MYLA					
	C385	QFN31HJ-332Z	3300PF	50V	MYLAR	CAPA					
	C386	QFN31HJ-332Z	3300PF	50V	MYLAR	CAPA					
	C389	QFN81HJ-152	1500PF	50V	METAL	.MYLA					
	C390	QFN81HJ-152	1500PF	50V	METAL	.MYLA					
	C395	QETC1EM-107ZN	100MF	25V	E.	CAPACITO					
	C396	QETC1EM-107ZN	100MF	25V	E.	CAPACITO					
	C397	QCS21HJ-220A	22PF	50V	CER.	CAPACI					BS
	C397	QCS21HJ-220A	22PF	50V	CER.	CAPACI					EF
	C397	QCS21HJ-220A	22PF	50V	CER.	CAPACI					EN
	C397	QCS21HJ-220A	22PF	50V	CER.	CAPACI					G
	C397	QCS21HJ-220A	22PF	50V	CER.	CAPACI					U
	C397	QCS21HJ-220A	22PF	50V	CER.	CAPACI					UB
	C397	QCS21HJ-220A	22PF	50V	CER.	CAPACI					US
	C397	QCS21HJ-220A	22PF	50V	CER.	CAPACI					UT
	C398	QCS21HJ-220A	22PF	50V	CER.	CAPACI					BS
	C398	QCS21HJ-220A	22PF	50V	CER.	CAPACI					EF
	C398	QCS21HJ-220A	22PF	50V	CER.	CAPACI					EN
	C398	QCS21HJ-220A	22PF	50V	CER.	CAPACI					G

CAPACITORS

A	I T E M	P A R T N U M B E R	D E S C R I P T I O N	A R E A
	C398	QCS21HJ-220A	22PF 50V CER.CAPACI	U
	C398	QCS21HJ-220A	22PF 50V CER.CAPACI	UB
	C398	QCS21HJ-220A	22PF 50V CER.CAPACI	US
	C398	QCS21HJ-220A	22PF 50V CER.CAPACI	UT
	C501	QETB1HM-225	2.2MF 50V AL E.CAPAC	
	C502	QCB21HK-221Y	220PF 50V CER.CAPACI	
	C503	QETB1HM-225	2.2MF 50V AL E.CAPAC	
	C504	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	
	C505	EEZ0601-108	1000MF 50V AL E.CAPAC	
	C506	QZC2022-155	1.5MF 25V CER.RESIST	
	C507	QETB1AM-227	220MF 10V E.CAPACITO	
	C510	QEKF50JM-476	47MF 6.3V AL E.CAPAC	
	C521	QETB1CM-226	22MF 16V E.CAPACITO	
	C700	QCF21HP-223A	0.022MF 50V CER.CAPACI	BS
	C700	QCF21HP-223A	0.022MF 50V CER.CAPACI	EF
	C700	QCF21HP-223A	0.022MF 50V CER.CAPACI	EN
	C700	QCF21HP-223A	0.022MF 50V CER.CAPACI	EG
	C701	EET2508-226Z	22MF E.CAPACITO	
	C702	EET2508-226Z	22MF E.CAPACITO	
	C711	QCS31HJ-100Z	10PF 50V CER.CAPACI	
	C712	QCS31HJ-100Z	10PF 50V CER.CAPACI	
	C761	QFP81HJ-680	68PF 50V POLYPROPY.	BS
	C761	QFP81HJ-680	68PF 50V POLYPROPY.	EF
	C761	QFP81HJ-680	68PF 50V POLYPROPY.	EN
	C761	QFP81HJ-680	68PF 50V POLYPROPY.	G
	C761	QFP81HJ-680	68PF 50V POLYPROPY.	U
	C761	QFP81HJ-680	68PF 50V POLYPROPY.	UB
	C761	QFP81HJ-680	68PF 50V POLYPROPY.	US
	C762	QFP81HJ-680	68PF 50V POLYPROPY.	UT
	C762	QFP81HJ-680	68PF 50V POLYPROPY.	BS
	C762	QFP81HJ-680	68PF 50V POLYPROPY.	EF
	C762	QFP81HJ-680	68PF 50V POLYPROPY.	EN
	C762	QFP81HJ-680	68PF 50V POLYPROPY.	G
	C762	QFP81HJ-680	68PF 50V POLYPROPY.	U
	C762	QFP81HJ-680	68PF 50V POLYPROPY.	UB
	C762	QFP81HJ-680	68PF 50V POLYPROPY.	US
	C762	QFP81HJ-680	68PF 50V POLYPROPY.	UT
	C763	QFP81HJ-680	68PF 50V POLYPROPY.	BS
	C763	QFP81HJ-680	68PF 50V POLYPROPY.	EF
	C763	QFP81HJ-680	68PF 50V POLYPROPY.	EN
	C763	QFP81HJ-680	68PF 50V POLYPROPY.	G
	C763	QFP81HJ-680	68PF 50V POLYPROPY.	U
	C763	QFP81HJ-680	68PF 50V POLYPROPY.	UB
	C763	QFP81HJ-680	68PF 50V POLYPROPY.	US
	C764	QFP81HJ-680	68PF 50V POLYPROPY.	UT
	C764	QFP81HJ-680	68PF 50V POLYPROPY.	BS
	C764	QFP81HJ-680	68PF 50V POLYPROPY.	EF
	C764	QFP81HJ-680	68PF 50V POLYPROPY.	EN
	C764	QFP81HJ-680	68PF 50V POLYPROPY.	G
	C764	QFP81HJ-680	68PF 50V POLYPROPY.	U
	C764	QFP81HJ-680	68PF 50V POLYPROPY.	UB
	C764	QFP81HJ-680	68PF 50V POLYPROPY.	US
	C764	QFP81HJ-680	68PF 50V POLYPROPY.	UT
	C773	QVF81HJ-473	0.047MF 50V THIN FILM	
	C774	QVF81HJ-473	0.047MF 50V THIN FILM	
	C781	QFVC1HJ-104ZN	0.1MF 50V METAL.MYLA	
	C782	QFVC1HJ-104ZN	0.1MF 50V METAL.MYLA	
	C783	QFVC1HJ-104ZN	0.1MF 50V METAL.MYLA	
	C784	QFVC1HJ-104ZN	0.1MF 50V METAL.MYLA	
	C787	QFVC1HJ-104ZN	0.1MF 50V METAL.MYLA	BS
	C787	QFVC1HJ-104ZN	0.1MF 50V METAL.MYLA	EF
	C787	QFVC1HJ-104ZN	0.1MF 50V METAL.MYLA	EN
	C787	QFVC1HJ-104ZN	0.1MF 50V METAL.MYLA	G
	C788	QFVC1HJ-104ZN	0.1MF 50V METAL.MYLA	BS
	C788	QFVC1HJ-104ZN	0.1MF 50V METAL.MYLA	EF
	C788	QFVC1HJ-104ZN	0.1MF 50V METAL.MYLA	EN
	C788	QFVC1HJ-104ZN	0.1MF 50V METAL.MYLA	G
	C789	QFVC1HJ-103ZN	0.01MF 50V METAL.MYLA	BS
	C789	QFVC1HJ-103ZN	0.01MF 50V METAL.MYLA	EF
	C789	QFVC1HJ-103ZN	0.01MF 50V METAL.MYLA	EN
	C789	QFVC1HJ-103ZN	0.01MF 50V METAL.MYLA	G
	C790	QFVC1HJ-103ZN	0.01MF 50V METAL.MYLA	BS
	C790	QFVC1HJ-103ZN	0.01MF 50V METAL.MYLA	EF
	C790	QFVC1HJ-103ZN	0.01MF 50V METAL.MYLA	EN
	C790	QFVC1HJ-103ZN	0.01MF 50V METAL.MYLA	G
	C791	QCB81HK-102Y	1000PF 50V CER.CAPACI	BS
	C791	QCB81HK-102Y	1000PF 50V CER.CAPACI	EF
	C791	QCB81HK-102Y	1000PF 50V CER.CAPACI	EN
	C791	QCB81HK-102Y	1000PF 50V CER.CAPACI	G
	C792	QCB81HK-102Y	1000PF 50V CER.CAPACI	BS
	C792	QCB81HK-102Y	1000PF 50V CER.CAPACI	EF
	C792	QCB81HK-102Y	1000PF 50V CER.CAPACI	EN
	C792	QCB81HK-102Y	1000PF 50V CER.CAPACI	G
	C801	EEW5009-828E	8200MF E.CAPACITO	
	C802	EEW5009-828E	8200MF E.CAPACITO	
	C807	EETB1EM-476E	47MF 25V E.CAPACITO	
	C808	EETB1EM-476E	47MF 25V E.CAPACITO	
	C810	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C811	EETB1HM-227E	220MF 50V AL E.CAPAC	
	C812	EETB1HM-227E	220MF 50V AL E.CAPAC	
	C815	EETB1EM-226E	22MF 25V ELECTRO	
	C816	EETB1EM-226E	22MF 25V ELECTRO	
	C821	QETB1EM-228	2200MF 25V E.CAPACITO	
	C824	QETB1AM-107	100MF 10V AL E.CAPAC	
	C831	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C840	QFN82AJ-104	0.1MF 100V NYLAR.CAPA	
	C843	QFN82AJ-104	0.1MF 100V NYLAR.CAPA	
	C844	QFN82AJ-104	0.1MF 100V NYLAR.CAPA	
	C845	QFN82AJ-104	0.1MF 100V NYLAR.CAPA	
	C846	QFN82AJ-104	0.1MF 100V NYLAR.CAPA	
	C851	EETC2AM-105ZE	1MF 100V E.CAPACITO	
	C852	EETC2AM-105ZE	1MF 100V E.CAPACITO	
	C901	QETB1HM-105	1MF 50V AL E.CAPAC	
	C903	QETB1HM-226E	22MF 50V E.CAPACITO	
	C904	QETB1CM-476	47MF 16V AL E.CAPAC	

RESISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R101	QRD161J-222	2.2K 1/6W CARBON RES	
	R102	QRD161J-222	2.2K 1/6W CARBON RES	
	R103	QRD161J-473	47K 1/6W CARBON RES	
	R104	QRD161J-473	47K 1/6W CARBON RES	
	R105	QRD161J-474	470K 1/6W CARBON RES	
	R106	QRD161J-474	470K 1/6W CARBON RES	
	R107	QRD161J-393	39K 1/6W CARBON RES	
	R108	QRD161J-393	39K 1/6W CARBON RES	
	R109	QRD161J-561	560 1/6W CARBON RES	
	R110	QRD161J-561	560 1/6W CARBON RES	
	R111	QRD161J-101	100 1/6W CARBON RES	
	R112	QRD161J-101	100 1/6W CARBON RES	
	R113	QRD161J-104	100K 1/6W CARBON RES	
	R114	QRD161J-104	100K 1/6W CARBON RES	
Δ	R121	QRD14CJ-471SX	470 1/6W UNF.CARBON	
Δ	R122	QRD14CJ-471SX	470 1/6W UNF.CARBON	
	R201	QRD161J-331	330 1/6W CARBON RES	
	R202	QRD161J-331	330 1/6W CARBON RES	
	R203	QRD161J-331	330 1/6W CARBON RES	
	R204	QRD161J-331	330 1/6W CARBON RES	
	R205	QRD161J-331	330 1/6W CARBON RES	
	R206	QRD161J-331	330 1/6W CARBON RES	
	R207	QRD161J-331	330 1/6W CARBON RES	
	R208	QRD161J-331	330 1/6W CARBON RES	
	R209	QRD161J-331	330 1/6W CARBON RES	
	R210	QRD161J-331	330 1/6W CARBON RES	
	R211	QRD161J-474	470K 1/6W CARBON RES	
	R212	QRD161J-474	470K 1/6W CARBON RES	
	R213	QRD161J-474	470K 1/6W CARBON RES	
	R214	QRD161J-474	470K 1/6W CARBON RES	
	R215	QRD161J-474	470K 1/6W CARBON RES	
	R216	QRD161J-474	470K 1/6W CARBON RES	
	R217	QRD161J-474	470K 1/6W CARBON RES	
	R218	QRD161J-474	470K 1/6W CARBON RES	
	R219	QRD161J-105	1M 1/6W CARBON RES	
	R220	QRD161J-105	1M 1/6W CARBON RES	
	R221	QRD161J-222	2.2K 1/6W CARBON RES	
	R222	QRD161J-222	2.2K 1/6W CARBON RES	
	R231	QRD161J-101	100 1/6W CARBON RES	
	R232	QRD161J-101	100 1/6W CARBON RES	
	R233	QRD161J-105	1M 1/6W CARBON RES	
	R234	QRD161J-105	1M 1/6W CARBON RES	
	R235	QRD161J-623	62K 1/6W CARBON RES	
	R236	QRD161J-623	62K 1/6W CARBON RES	
Δ	R241	QRD14CJ-471SX	470 1/6W UNF.CARBON	
Δ	R242	QRD14CJ-471SX	470 1/6W UNF.CARBON	
	R251	QRD161J-122	1.2K 1/6W CARBON RES	
	R252	QRD161J-122	1.2K 1/6W CARBON RES	
	R255	QRD161J-223	22K 1/6W CARBON RES	
	R256	QRD161J-333	33K 1/6W CARBON RES	
	R261	QRD161J-331	330 1/6W CARBON RES	
	R262	QRD161J-331	330 1/6W CARBON RES	
	R263	QRD161J-331	330 1/6W CARBON RES	
	R264	QRD161J-331	330 1/6W CARBON RES	
	R265	QRD161J-331	330 1/6W CARBON RES	
	R266	QRD161J-331	330 1/6W CARBON RES	
	R267	QRD161J-331	330 1/6W CARBON RES	
	R268	QRD161J-331	330 1/6W CARBON RES	
	R271	QRD161J-474	470K 1/6W CARBON RES	
	R272	QRD161J-474	470K 1/6W CARBON RES	
	R273	QRD161J-474	470K 1/6W CARBON RES	
	R274	QRD161J-474	470K 1/6W CARBON RES	
	R275	QRD161J-105	1M 1/6W CARBON RES	
	R276	QRD161J-105	1M 1/6W CARBON RES	
	R277	QRD161J-105	1M 1/6W CARBON RES	
	R278	QRD161J-105	1M 1/6W CARBON RES	
	R301	QRD161J-123	12K 1/6W CARBON RES	
	R302	QRD161J-123	12K 1/6W CARBON RES	
	R303	QRD161J-224	220K 1/6W CARBON RES	
	R304	QRD161J-224	220K 1/6W CARBON RES	
	R305	QRD161J-123	12K 1/6W CARBON RES	
	R306	QRD161J-123	12K 1/6W CARBON RES	
Δ	R331	QRD14CJ-471SX	470 1/6W UNF.CARBON	
Δ	R332	QRD14CJ-471SX	470 1/6W UNF.CARBON	
	R341	QRD161J-102	1K 1/6W CARBON RES	
	R342	QRD161J-102	1K 1/6W CARBON RES	
	R343	QRD161J-105	1M 1/6W CARBON RES	
	R344	QRD161J-102	1K 1/6W CARBON RES	
	R345	QRD161J-104	100K 1/6W CARBON RES	
	R350	QRD161J-221	220 1/6W CARBON RES	BS
	R350	QRD161J-221	220 1/6W CARBON RES	EF
	R350	QRD161J-221	220 1/6W CARBON RES	EN
	R350	QRD161J-221	220 1/6W CARBON RES	G
	R350	QRD161J-221	220 1/6W CARBON RES	U
	R350	QRD161J-221	220 1/6W CARBON RES	UB
	R350	QRD161J-221	220 1/6W CARBON RES	US
	R350	QRD161J-221	220 1/6W CARBON RES	UT
	R351	QRD161J-471	470 1/6W CARBON RES	
	R352	QRD161J-471	470 1/6W CARBON RES	
	R357	QRD161J-103	10K 1/6W CARBON RES	
	R358	QRD161J-103	10K 1/6W CARBON RES	
	R359	QRD161J-103	10K 1/6W CARBON RES	
	R360	QRD161J-103	10K 1/6W CARBON RES	
	R371	QRD161J-101	100 1/6W CARBON RES	
	R372	QRD161J-101	100 1/6W CARBON RES	
	R373	QRD161J-104	100K 1/6W CARBON RES	
	R374	QRD161J-104	100K 1/6W CARBON RES	
	R375	QRD161J-223	22K 1/6W CARBON RES	
	R376	QRD161J-223	22K 1/6W CARBON RES	
	R381	QRD161J-332YTT	3.3K 1/6W CARBON RES	
	R382	QRD161J-332YTT	3.3K 1/6W CARBON RES	
	R383	QRD161J-332YTT	3.3K 1/6W CARBON RES	
	R384	QRD161J-332YTT	3.3K 1/6W CARBON RES	
	R385	QRD161J-223	22K 1/6W CARBON RES	
	R386	QRD161J-223	22K 1/6W CARBON RES	
	R387	QRD161J-104	100K 1/6W CARBON RES	
	R388	QRD161J-104	100K 1/6W CARBON RES	
	R389	QRD161J-223	22K 1/6W CARBON RES	
	R390	QRD161J-223	22K 1/6W CARBON RES	
	R391	QRD161J-474	470K 1/6W CARBON RES	

RESISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R392	QRD161J-474	470K 1/6W CARBON RES	
	R393	QRD161J-391	390 1/6W CARBON RES	
Δ	R394	QRD161J-391	390 1/6W CARBON RES	
Δ	R395	QRD14CJ-101S	100 1/4W UNF.CARBON	
	R501	QRD161J-103	10K 1/6W CARBON RES	
	R502	QRD161J-103	10K 1/6W CARBON RES	
	R503	QRD161J-102	1K 1/6W CARBON RES	
	R504	QRD161J-221	220 1/6W CARBON RES	
	R505	QRD161J-102	1K 1/6W CARBON RES	
	R506	QRD161J-103	10K 1/6W CARBON RES	
	R508	QRD161J-223	22K 1/6W CARBON RES	
	R509	QRD161J-221	220 1/6W CARBON RES	
	R510	QRD161J-271	270 1/6W CARBON RES	
	R511	QRD161J-181	180 1/6W CARBON RES	EF
	R511	QRD161J-181	180 1/6W CARBON RES	EN
	R511	QRD161J-181	180 1/6W CARBON RES	G
	R511	QRD161J-181	180 1/6W CARBON RES	U
	R511	QRD161J-181	180 1/6W CARBON RES	US
	R511	QRD161J-181	180 1/6W CARBON RES	UT
	R511	QRD161J-471	470 1/6W CARBON RES	BS
	R512	QRD161J-271	270 1/6W CARBON RES	
	R513	QRD161J-473	47K 1/6W CARBON RES	
	R514	QRD161J-103	10K 1/6W CARBON RES	
	R515	QRD161J-103	10K 1/6W CARBON RES	
	R516	QRD161J-103	10K 1/6W CARBON RES	
	R517	QRD161J-103	10K 1/6W CARBON RES	
	R518	QRD161J-103	10K 1/6W CARBON RES	
	R521	QRD161J-103	10K 1/6W CARBON RES	
	R522	QRD161J-105	1M 1/6W CARBON RES	
	R523	QRD161J-105	1M 1/6W CARBON RES	
	R524	QRD161J-105	1M 1/6W CARBON RES	
	R711	ERD141J-104SY	100K 1/4W CARBON RES	
	R712	ERD141J-104SY	100K 1/4W CARBON RES	
	R751	QVPE601-501	500 0.15W TRIMMER RE	
	R752	QVPE601-501	500 0.15W TRIMMER RE	
	R755	ERT-D2WFL351S	350 1/4W NEGATIVE T	
	R756	ERT-D2WFL351S	350 1/4W NEGATIVE T	
	R757	QRD161J-101	100 1/6W CARBON RES	
	R758	QRD161J-101	100 1/6W CARBON RES	
	R759	QRD161J-471	470 1/6W CARBON RES	
	R760	QRD161J-471	470 1/6W CARBON RES	
	R761	QRD161J-391	390 1/6W CARBON RES	
	R762	QRD161J-391	390 1/6W CARBON RES	
Δ	R763	QRD14CJ-1225X	1.2K 1/6W UNF.CARBON	
Δ	R764	QRD14CJ-1225X	1.2K 1/6W UNF.CARBON	
	R765	QRD14CJ-101S	100 1/4W UNF.CARBON	
Δ	R766	QRD14CJ-101S	100 1/4W UNF.CARBON	
	R767	QRD14CJ-473SX	4.7 1/4W UNF.CARBON	
	R768	QRD14CJ-473SX	4.7 1/4W UNF.CARBON	
	R769	QRD14CJ-473SX	4.7 1/4W UNF.CARBON	
Δ	R770	QRD14CJ-473SX	4.7 1/4W UNF.CARBON	
Δ	R771	ERFO32K-R22	0.22 3W CEM.RESIST	
	R772	ERFO32K-R22	0.22 3W CEM.RESIST	
	R777	QRD14CJ-470SX	47 1/4W UNF.CARBON	
	R778	QRD14CJ-470SX	47 1/4W UNF.CARBON	
	R779	QRD14CJ-470SX	47 1/4W UNF.CARBON	
	R780	QRD14CJ-470SX	47 1/4W UNF.CARBON	
	R781	QRD125J-100	10 1/2W UNF.CARBON	
	R782	QRD125J-100	10 1/2W UNF.CARBON	
	R783	QRG022J-100AM	10 2W OXIDE META	
	R784	QRG022J-100AM	10 2W OXIDE META	
	R785	QRG022J-821AM	820 2W OXIDE META	
	R786	QRG022J-821AM	820 2W OXIDE META	
	R787	QRZ0077-100	10 1/4W FUSIBLE RE	BS
	R787	QRZ0077-100	10 1/4W FUSIBLE RE	EF
	R787	QRZ0077-100	10 1/4W FUSIBLE RE	EN
	R788	QRZ0077-100	10 1/4W FUSIBLE RE	G
	R788	QRZ0077-100	10 1/4W FUSIBLE RE	BS
	R788	QRZ0077-100	10 1/4W FUSIBLE RE	EN
	R791	QRD14CJ-471SX	470 1/4W UNF.CARBON	
	R792	QRD14CJ-471SX	470 1/4W UNF.CARBON	
	R793	QRD14CJ-471SX	470 1/4W UNF.CARBON	
	R795	QRD14CJ-331SX	330 1/6W UNF.CARBON	
	R796	QRD14CJ-331SX	330 1/6W UNF.CARBON	
	R797	QRD14CJ-331SX	330 1/6W UNF.CARBON	
	R798	QRD14CJ-331SX	330 1/6W UNF.CARBON	
	R801	QRZ0077-100	10 1/4W FUSIBLE RE	
	R802	QRZ0077-100	10 1/4W FUSIBLE RE	
	R803	QRD161J-822	8.2K 1/6W CARBON RES	
	R804	QRD161J-822	8.2K 1/6W CARBON RES	
	R805	QRD161J-103	10K 1/6W CARBON RES	
	R806	QRD161J-103	10K 1/6W CARBON RES	
	R811	QRD14CJ-330SX	33 1/4W UNF.CARBON	
	R812	QRD14CJ-330SX	33 1/4W UNF.CARBON	
	R821	QRD161J-122	1.2K 1/6W CARBON RES	
	R851	ERD161J-82S	8.2 1/4W CARBON RES	
	R901	QRD161J-104	100K 1/6W CARBON RES	
	R902	QRD161J-823	82K 1/6W CARBON RES	
	R903	QRD161J-272	2.7K 1/6W CARBON RES	
	R904	QRD161J-272	2.7K 1/6W CARBON RES	
	R905	QRD161J-153	15K 1/6W CARBON RES</td	

RESISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
Δ	R921	QRD161J-563	56K 1/6W CARBON RES	
Δ	R922	QRD161J-473	47K 1/6W CARBON RES	
Δ	R923	QRD161J-103	10K 1/6W CARBON RES	
Δ	R924	QRD161J-103	10K 1/6W CARBON RES	
Δ	R931	QRG022J-391AM	390 2W OXIDE META	EF
Δ	R931	QRG022J-391AM	390 2W OXIDE META	EN
Δ	R931	QRG022J-391AM	390 2W OXIDE META	G
Δ	R931	QRG022J-391AM	390 2W OXIDE META	U
Δ	R931	QRG022J-391AM	390 2W OXIDE META	UB
Δ	R931	QRG022J-391AM	390 2W OXIDE META	US
Δ	R931	QRG022J-391AM	390 2W OXIDE META	UT
Δ	R932	QRZ0077-121X	120 1/4W FUSIBLE RE	
Δ	R933	QRD161J-222	2.2K 1/6W CARBON RES	

OTHERS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	BUSH-PUL	BUSHING		
	EMW10434-102	CIRCUIT BOA	BS	
	EMW10434-102	CIRCUIT BOA	EF	
	EMW10434-102	CIRCUIT BOA	EN	
	EMW10434-102	CIRCUIT BOA	G	
	EMW10434-102	CIRCUIT BOA	U	
	EMW10434-102	CIRCUIT BOA	UB	
	EMW10434-102	CIRCUIT BOA	US	
	EMW10434-102	CIRCUIT BOA	UT	
	E306805-047	SPACER		
	E308970-001	HEAT SINK		
	E308971-001ST	HEAT SINK B		
	E308971-002ST	HEAT SINK B		
	E73525-003	SCREW		
	E73967-003	SPACER		
	GBSG3008CC	TAPPING SCR		
	QWE690-14RR	VINYL WIRE		
	QWE692-14RR	VINYL WIRE		
	QWE696-16RR	VINYL WIRE		
	SBSG3008CC	TAPPING SCR		
J101	EMNOOTV-208A	PIN JACK		
J102	EMNOOTV-406A	JACK BOARD		
J103	EMNOOTV-603A	JACK BOARD		
J104	EMNOOTV-406A	JACK BOARD		
J105	EMNOOTV-406A	JACK BOARD		

OTHERS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	J501	QMS3501-020	PIN JACK	
	J701	EMBOOTV-404A	SPK.TERMINA	
	J791	QMS3L63-E40G	MINI JACK	
	K503	ENZ8101-008	INDUCTOR	
	L781	EQL0001-1R0	INDUCTOR	
	L782	EQL0001-1R0	INDUCTOR	
	P202	EMV5109-009B	CONNECT TER	
	P203	EMV5109-008B	CONNECTOR	
	P500	EMV5109-014B	PLUG CORD A	
	PS001	ESP0001-023M	TACT SWITCH	
	S502	ESP0001-023M	TACT SWITCH	
	S503	ESP0001-023M	TACT SWITCH	
	BC202	EWS299-0318	SOCKET WIRE	
	BC203	EWS268-A416	SOCKET WIRE	
	BC500	EWS246-A416	SOCKET WIRE	
	EP300	EMZ4002-001Z	EARTH PLATE	
	EP900	EMZ4002-001Z	EARTH PLATE	
	FC101	EMG7331-002	FEEDER CLAM	
	FC102	EMG7331-002U	CONTACT CLI	
	FW801	EWR33B-10SST	FLAT WIRE A	
	HS801	E70306-001	HEAT SINK	
	HS802	E70306-001	HEAT SINK	
	HS821	E70945-H25	HEAT SINK	
	JA201	EMV7125-012R	CONNECT TER	
	JB201	EMV5125-012	CONNECT TER	
	JB301	EMV5125-012	CONNECT TER	
	JB321	EMV5125-009	CONNECT TER	
	JB700	EMV5140-015	CONNECT TER	
	JS501	QSJ4002-E01	PUSH SWITCH	
	PA790	VMC0194-S05	FEMALE CONN	
	PB350	EMV5103-002B	MALE CONNEC	
	PB790	VMC0194-P05	MALE CONNEC	
	RY251	ESK5D24-21AF	RELAY	
	RY901	ESK7D24-2120	RELAY	
	RY901	ESK7D24-2120	RELAY	
	RY901	ESK7D24-2120	RELAY	
	RY901	ESK7D24-2120	RELAY	
	RY901	ESK7D24-2120	RELAY	
	RY901	ESK7D24-2120	RELAY	
	RY901	ESK7D24-2120	RELAY	
	RY901	ESK7D24-2120	RELAY	
	XT501	ECX0060-000EM	CERAMIC RES	

■ ENE-095 Pre. Driver PC Board Ass'y

TRANSISTORS

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q701	2SC2240(GR,BL)	SI.TRANSIST TOSHIBA	
	Q702	2SC2240(GR,BL)	SI.TRANSIST TOSHIBA	
	Q703	2SC2240(GR,BL)	SI.TRANSIST TOSHIBA	
	Q704	2SC2240(GR,BL)	SI.TRANSIST TOSHIBA	
	Q705	2SC1775AV(F1)	SI.TRANSIST HITACHI	
	Q706	2SC1775AV(F1)	SI.TRANSIST HITACHI	
	Q707	2SA933LNR(S)	SI.TRANSIST ROHM	
	Q708	2SA933LNR(S)	SI.TRANSIST ROHM	
	Q709	2SA1207(S,T)	SI.TRANSIST SANYO	
	Q710	2SA1207(S,T)	SI.TRANSIST SANYO	
	Q711	2SC2909(S,T)	SI.TRANSIST SANYO	
	Q712	2SC2909(S,T)	SI.TRANSIST SANYO	
	Q713	2SA933LNR(S)	SI.TRANSIST ROHM	
	Q714	2SA933LNR(S)	SI.TRANSIST ROHM	
	Q921	DTC144ES	DIGITAL TRA ROHM	
	Q922	DTC144YS	DIGITAL TRA ROHM	

I. C. S.

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC351	LB1639-CV	I.C(DIGI-OT SANYO	

DIODES

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	D355	11E2	SI.DIODE NIHONINTER	
	D356	11E2	SI.DIODE NIHONINTER	
	D700	SLR-342MCA47	L.E.D. ROHM	
	D711	MT22.7JB	ZENER DIODE ROHM	
	D712	MT22.7JB	ZENER DIODE ROHM	
	D713	ISS119	SI.DIODE	
	D714	ISS119	SI.DIODE	
	D721	MT26.2JC	ZENER DIODE ROHM	

CAPACITORS

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	C313	QFN81HJ-153	0.015MF 50V MYLAR CAPA	
	C314	QFN81HJ-153	0.015MF 50V MYLAR CAPA	
	C315	QFVB1HJ-124N	0.12MF 50V THIN FILM	
	C316	QFVB1HJ-124N	0.12MF 50V THIN FILM	
	C317	QFVB1HJ-124N	0.12MF 50V THIN FILM	
	C318	QFVB1HJ-124N	0.12MF 50V THIN FILM	
	C355	QETB1AM-476	47MF 10V E.CAPACITO	
	C356	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C703	QFP81HJ-680	68PF 50V POLYPROP.	
	C704	QFP81HJ-680	68PF 50V POLYPROP.	
	C705	QCS31HJ-331Z	330PF 50V CER.CAPACI	BS
	C705	QCS31HJ-331Z	330PF 50V CER.CAPACI	EF
	C705	QCS31HJ-331Z	330PF 50V CER.CAPACI	EN
	C705	QCS31HJ-331Z	330PF 50V CER.CAPACI	G
	C705	QCS31HJ-331Z	330PF 50V CER.CAPACI	U
	C705	QCS31HJ-331Z	330PF 50V CER.CAPACI	UB
	C705	QCS31HJ-331Z	330PF 50V CER.CAPACI	US
	C705	QCS31HJ-331Z	330PF 50V CER.CAPACI	UT
	C706	QCS31HJ-331Z	330PF 50V CER.CAPACI	BS
	C706	QCS31HJ-331Z	330PF 50V CER.CAPACI	EF
	C706	QCS31HJ-331Z	330PF 50V CER.CAPACI	EN
	C706	QCS31HJ-331Z	330PF 50V CER.CAPACI	G
	C706	QCS31HJ-331Z	330PF 50V CER.CAPACI	U
	C706	QCS31HJ-331Z	330PF 50V CER.CAPACI	UB
	C706	QCS31HJ-331Z	330PF 50V CER.CAPACI	US
	C706	QCS31HJ-331Z	330PF 50V CER.CAPACI	UT
	C709	QFLB1HJ-821	820PF 50V MYLAR CAPA	
	C710	QFLB1HJ-821	820PF 50V MYLAR CAPA	
	C713	EET2508-226ZE	22MF E.CAPACITO	
	C714	EET2508-226ZE	22MF E.CAPACITO	
	C721	QCS21HJ-220A	22PF 50V CER.CAPACI	
	C722	QCS21HJ-220A	22PF 50V CER.CAPACI	
	C723	QCS31HJ-680Z	68PF 50V CER.CAPACI	
	C724	QCS31HJ-680Z	68PF 50V CER.CAPACI	
	C725	QCS31HJ-680Z	68PF 50V CER.CAPACI	
	C726	QCS31HJ-680Z	68PF 50V CER.CAPACI	
	C727	QFVB1HJ-103	0.01MF 50V THIN FILM	
	C728	QFVB1HJ-103	0.01MF 50V THIN FILM	

RESISTORS

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	R300	QVD894Z-E15C	100K VARIABLE R	
	R307	QRD161J-392YT	3.9K 1/6W CARBON RES	
	R308	QRD161J-392YT	3.9K 1/6W CARBON RES	
	R309	QRD161J-132YYT	1.3K 1/6W CARBON	
	R310	QRD161J-132YYT	1.3K 1/6W CARBON	
	R311	QRD161J-132YYT	1.3K 1/6W CARBON	
	R312	QRD161J-132YYT	1.3K 1/6W CARBON	
	R313	QRD161J-392YT	3.9K 1/6W CARBON RES	
	R314	QRD161J-392YT	3.9K 1/6W CARBON RES	
	R315	QRD161J-100	10 1/6W CARBON RES	
	R316	QRD161J-100	10 1/6W CARBON RES	
	R317	QRD161J-100	10 1/6W CARBON RES	
	R318	QRD161J-100	10 1/6W CARBON RES	
	R321	QVJB84B-E54F	50K VARIABLE R	
	R322	QVJB84B-E54F	50K VARIABLE R	
	R323	QVJB84M-E54C	50K VARIABLE R	
	R361	QRD161J-103	10K 1/6W CARBON RES	
	R362	QRD161J-103	10K 1/6W CARBON RES	
	R701	ERD141J-221S	220 1/4W CARBON RES	
	R702	ERD141J-221S	220 1/4W CARBON RES	
	R703	ERD141J-104SY	100K 1/4W CARBON RES	
	R704	ERD141J-104SY	100K 1/4W CARBON RES	
	R705	QRD14CJ-101S	100 1/4W UNF.CARBON	
	R706	QRD14CJ-101S	100 1/4W UNF.CARBON	
	R707	QRD14CJ-121SX	120 1/4W UNF.CARBON	
	R708	QRD14CJ-121SX	120 1/4W UNF.CARBON	
	R709	QRD161J-101	100 1/6W CARBON RES	
	R710	QRD161J-101	100 1/6W CARBON RES	
	R713	ERD141J-122S	1.2K 1/4W CARBON	BS
	R713	ERD141J-122S	1.2K 1/4W CARBON	EF
	R713	ERD141J-122S	1.2K 1/4W CARBON	EN
	R713	ERD141J-122S	1.2K 1/4W CARBON	GU
	R713	ERD141J-122S	1.2K 1/4W CARBON	UB
	R713	ERD141J-122S	1.2K 1/4W CARBON	US
	R714	ERD141J-122S	1.2K 1/4W CARBON	UT
	R714	ERD141J-122S	1.2K 1/4W CARBON	BS
	R714	ERD141J-122S	1.2K 1/4W CARBON	EF
	R714	ERD141J-122S	1.2K 1/4W CARBON	EN
	R714	ERD141J-122S	1.2K 1/4W CARBON	U
	R714	ERD141J-122S	1.2K 1/4W CARBON	UB
	R714	ERD141J-122S	1.2K 1/4W CARBON	US
	R715	QRV144F-2201A	2.2K 1/4W CONST.META	
	R716	QRV144F-2201A	2.2K 1/4W CONST.META	
	R717	QRV144F-2701	2.7K 1/4W CONST.META	
	R718	QRV144F-2701	2.7K 1/4W CONST.META	
	R719	QRV144F-2702	2.7K 1/4W CONST.META	
	R721	QRV144F-2702	2.7K 1/4W CONST.META	
	R723	QRD14CJ-471SX	470 1/4W UNF.CARBON	
	R724	QRD14CJ-471SX	470 1/4W UNF.CARBON	
	R725	QRD14CJ-560S	56 1/4W UNF.CARBON	
	R726	QRD14CJ-560S	56 1/4W UNF.CARBON	
	R727	QRD161J-332YYT	3.3K 1/6W CARBON RES	
	R728	QRD161J-332YYT	3.3K 1/6W CARBON RES	
	R729	QRD14CJ-331SX	330 1/4W UNF.CARBON	
	R730	QRD14CJ-331SX	330 1/4W UNF.CARBON	
	R731	QRV144F-2702	27K 1/4W CONST.META	
	R732	QRV144F-2702	27K 1/4W CONST.META	
	R733	QRV144F-2702	27K 1/4W CONST.META	
	R734	QRV144F-2702	27K 1/4W CONST.META	
	R735	QRD14CJ-221S	220 1/4W UNF.CARBON	
	R736	QRD14CJ-221S	220 1/4W UNF.CARBON	
	R737	QRD14CJ-101S	100 1/4W UNF.CARBON	
	R738	QRD14CJ-101S	100 1/4W UNF.CARBON	

OTHERS

△	ITEM	PART NUMBER	DESCRIPTION	AREA
		EMW10440-102A	CIRCUIT BOA	BS
		EMW10440-102A	CIRCUIT BOA	EF
		EMW10440-102A	CIRCUIT BOA	EN
		EMW10440-102A	CIRCUIT BOA	G
		EMW10440-102A	CIRCUIT BOA	U
		EMW10440-102A	CIRCUIT BOA	US
		EMW10440-102A	CIRCUIT BOA	UT
	JA301	EMV7125-012R	CONNECT TER	
	JA321	EMV7125-009R	CONNECT TER	
	JA700	EMV7140-L15R	CONNECT TER	
	PA350	EMV5103-002A	MALE CONNEC	

■ END-099 Premary PC Board ass'y

RESISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	RO01	QRD161J-105	1M	1/6W	CARBON RES	U
	RO01	QRD161J-105	1M	1/6W	CARBON RES	UB
	RO01	QRD161J-105	1M	1/6W	CARBON RES	US
	RO01	QRD161J-105	1M	1/6W	CARBON RES	UT
	RO02	QRD161J-105	1M	1/6W	CARBON RES	U
	RO02	QRD161J-105	1M	1/6W	CARBON RES	UB
	RO02	QRD161J-105	1M	1/6W	CARBON RES	US
	RO02	QRD161J-105	1M	1/6W	CARBON RES	UT
	RO03	QRD161J-105	1M	1/6W	CARBON RES	U
	RO03	QRD161J-105	1M	1/6W	CARBON RES	UB
	RO03	QRD161J-105	1M	1/6W	CARBON RES	US
	RO03	QRD161J-105	1M	1/6W	CARBON RES	UT

OTHERS

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	TB001	E03891-001	TAB	BS
	TB001	E03891-001	TAB	EF
	TB001	E03891-001	TAB	EN
	TB001	E03891-001	TAB	G
	TB001	E03891-001	TAB	U
	TB001	E03891-001	TAB	UB
	TB001	E03891-001	TAB	US
	TB001	E03891-001	TAB	UT
	TB002	E03891-001	TAB	BS
	TB002	E03891-001	TAB	EF
	TB002	E03891-001	TAB	EN
	TB002	E03891-001	TAB	G
	TB002	E03891-001	TAB	U
	TB002	E03891-001	TAB	UB
	TB002	E03891-001	TAB	US
	TB002	E03891-001	TAB	UT

OTHERS

Accessories List

Symbol No.

M	2	M	M
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⚠	Item	Part Number	Part Name	Q'ty	Description	Area
	1	E30580-2358A	INSTRUCTION BOOK	1		EF,EN,GB,BS
		E30580-2360A	INSTRUCTION BOOK	1		U,UB,US,UT
	2	RM-SAF1RU	REMOCON	1		BS,EF,EN,G
		RM-SAF1U	W.LESS REMOCON	1		U,UB,US,UT
	3	R03BPA-2STSA	DRY CELL	1		
⚠	4	E300196-010B	ENVELOPE	1		
⚠	5	ENZ2202-001	SIEMENS PLUG	1		US,
⚠		ENZ2203-001	ADAPTOR PLUG	1		U,UT
	-	BT-20066A	DISTRIBUTOR LIST	1		BS
	-	BT-20134	WARRANTY CARD	1		G
	-	BT-54003-1	WARRANTY CARD	1		BS
	-	E43486-340A	SAFETY SHEET	1		BS

The Marks for Designated Areas

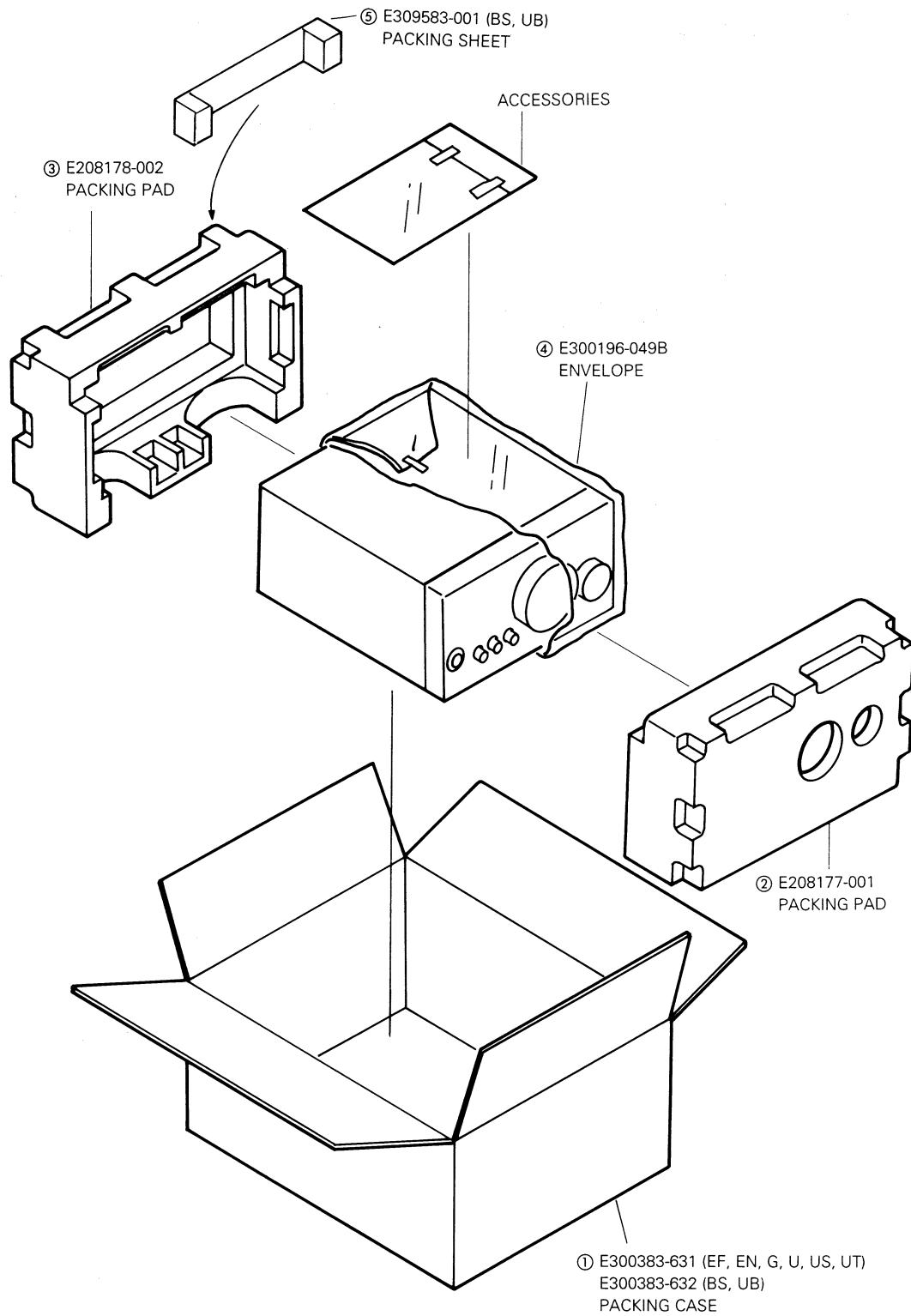
BS the U.K.	EF Continental Europe	G Germany	EN Nordic Countries
UB Hong Kong	US Singapore	UT Taiwan	U Universal

No mark indicates all area.

Packing Materials and Part Numbers

Symbol No.

M	3	M	M
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The Marks for Designated Areas

BS	the U.K.	EF	Continental Europe	Except Germany and Italy
G	Germany	EN	Nordic countries	U Universal
UB	Hong Kong	US	Singapore	UT Taiwan

No mark indicates all area.